Trust Among Strangers

A Position Paper for the CSCW '06 Workshop: Revisiting Online Trust

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1. Introduction

As a designer of online systems, I'm concerned with how to develop systems that are self-sustaining. That is, an online system must not only be easy to learn and use, but it needs to survive, grow and prosper over time. At present, our understanding of how to develop self-sustaining online systems is still in its infancy. I'm interested in participating in this workshop because I believe that trust in one of the crucial components of such self-sustaining systems.

In this position paper, I try to do three things. I begin with a story of an experience I recently had (in the face to face world, not online), and use it to raise some issues about trust and the things that contribute to it. It may be that social psychologists, consumer behavior researchers, or those in other disciplines have models which clarify the issues I raise: if so, I'll gladly adopt them; if not, it might prove to be a useful way for the workshop to explore conceptual frameworks for trust. Second, I note that one element of my story has to do with 'trust' between strangers, and suggest that trust among strangers is particularly apropos to those interested in designing online systems. To explore this, I turn to the urban design literature, which has had a significant impact on how I approach the design of online systems. Specifically, I draw on Jane Jacobs' seminal work, *The Death and Life of Great American Cities* (Jacobs, 1961), to explore the notion of 'the trust of a sidewalk.' In the third part of this paper, I briefly introduce my approach to designing online systems, which – in line with Jacobs' analyses, has to do with making the users of systems visible to one another.

2. Reflections on Trust

2.1 A True Story (honest!)

Our blender stopped working last week. This was disappointing, not only because my wife and I had become accustomed to the nearly daily smoothies that we made with it, but because the blender was quite expensive and less than six months old. We spent extra to get a blender that would be durable, and that would chew through ice cubes and frozen fruit without hesitation.

And indeed, I remember purchasing it. It had a 'retro' design. It was big and heavy: its motor housing hearkened back to the

days before corporations had figured out that products only needed to slightly outlast their warranty, and the container was made of glass so thick and heavy that it could be used as a bludgeon in pinch. The sales person had assured me that its apparently sturdy build was not just a product of a crafty industrial designer, but that in his experience it was one of their toughest and most reliable. It was a Waring® blender, a brand I remembered from my college days as the type we used to produce the purees of rat brains, cow hearts, and other substances that were the raw materials used in my biochemistry lab. Although these unappetizing associations from three decades past gave me a slight pause, still, anything that can turn several kilos of cow hearts into a frothy pink pulp, week after week, can handle frozen fruit. So I bought it.

And, as I said, I was disappointed. It only lasted about six months – and really only about six weeks, if we measure from the start of our daily smoothie habit. And of course it failed right in the middle of making a banana-mango-strawberry smoothie, leaving a lumpy pink pulp that resembled... well, never mind. But the blender did last long enough that I had grown confident in it, and had thrown away its packaging, and, not really thinking about it, the sales slip.

2.2 Whom do I blame?

Let us pause here, and reflect on the story thus far. Has my trust, in some sense, been violated? If so, who is at fault? We might blame the designers, who clearly worked hard to convey the impression of a robust and reliable machine. But somehow I find it hard, in my mind's ear, to hear the designer saying, "Sorry boss, we can't make it look that sturdy – this puppy is going to burn out just after the warranty is up." No, as a designer, I know that that just doesn't happen. Perhaps I should blame Waring, Inc., or at least the product manager, although again my corporate experience suggests that any properly assigned blame is more likely to be diffusely distributed across a large set of people who make decisions about budgets, return on investment, and component purchase prices. This, too, seems unsatisfying (though, on the other hand, it is true that my esteem for the Waring brand has gone down a notch). A third locus for blame is the salesperson who assured me of the fine qualities of the blender. This somehow seems more appropriate. He gave me advice, I followed it, and now I have a dysfunctional blender. On the other hand, I know the fellow. Well, not "know" in the sense that I remember his name – it's Chris or Jim or John or something like that – but he's an older fellow who has been around the store for a long

time, and he sells me coffee sometimes (they also sold me an espresso machine, and as they recommend their particular grind for it, I keep going back for coffee). And he's a nice guy. And I don't think he'd deliberately mislead me – I don't think they're on commission at this store, and even if they were this is not a big enough purchase to be worth jeopardizing several years of good customer experience. Most likely it was a mistake, or a rare 'lemon' of a blender.

Before raising some general issues, let's return to the story, for it has a happy ending that is not very far off.

2.3 A Happy Ending
After a few days, during which I searched for the sales slip and engaged in self-recrimination having to do with discarding said sales slip, I returned to the store on another errand. I saw Chris (as I will hereafter refer to him even though it could be John) and explained about the blender failure. We went to the blender section of the store and I pointed out the particular model that had failed, and was gratified when he expressed surprise: problems weren't unheard of with lesser *blenders, but* this, this *top-of-the-line Waring is rock solid. Also it had a year warranty on everything, so I should just bring it in and they'd replace it.*

I then confessed that I had discarded the sales slip. Chris didn't bat an eye. 'Oh, we know you,' he said, 'just bring it on in and we'll take care of it. 'And so I did. I didn't get around to actually bringing in the blender right away, and so by the time I came back with it Chris had forgotten our previous chat. But our interaction unfolded again, in pretty much the same way. Upon the discovery of the lost sales slip, Chris tried to look up the transaction in the computer (they'll sometimes ask for a phone number at the time of purchase, but I never give it out), but after finding nothing he just waved his hand and gave me a credit for the price of the blender. I would have preferred to just take a new one home, but they were out of stock on the high-end Waring's, and I really wanted another one. It looks really reliable...

2.4 On Trust
This story raises quite a few issues that are relevant to this workshop. Most essentially, it raises the issue of what we mean by "trust." Did I trust the blender to be reliable? Was I influenced by its heft and appearance? Did I trust the Waring brand? If so, why? My personal experience? My more general knowledge that Waring makes laboratory equipment, which has to be tough? Or more diffuse influences like the Waring blender as a familiar fixture of popular culture (e.g. Warren Zevon's lyric "She worked me over, kinda like a Waring blender" in "*Poor Poor Pitiful Me*")? Did I trust the sales person's recommendation based on his experience? And, to take the instance in the story that seems to me to be the clearest example of trust, why did the sales person trust me? I might very well have purchases the blender over the internet to save myself a few bucks, and am returning it to the store to save myself the trouble of shipping it back.

Although I personally prefer to view trust as an attribution that only applies between people, clearly the workshop needs to examine the various trust-like relationships that can occur between a person and an object, a person and a brand, and a person and a person.

It also strikes me, that regardless of what one chooses to call trust, it does not occur in a vacuum. My reasons for buying the blender, and Chris' presumed reasons for trusting me are complex chains, or perhaps networks, of reasoning and evidence. With regard to my decision to buy the blender, factors ranging from appearance, to brand name, to personal experience came into play. While I can only guess at Chuck's – er, Chris' reasons for trusting me, I do believe that the "Oh we know you" was a factor, even though the 'knowing' is a very weak form of knowing that probably meant that he vaguely recognized that I came in a lot. We did try to establish other evidence for my purchase, but when that failed he went ahead and trusted me. It seems to me that there is a complex relationship between evidence and reasoning and trust, and that the presence of evidence – whether it be a sales slip, a brand name, or a robust appearance – makes it a bit easier to trust.

3. Familiar Strangers and the Web of Trust
One of the aspects of the 'blender story' that I find most significant is that the clearest example of trust was Chris' decision to believe my assertion that I had purchased the blender from his store, even though I was, for all practical purposes, a stranger, albeit one whom he recognized.

3.1 Familiar Strangers[1]
This notion, that strangers may nevertheless be familiar to one another, and that familiarity can have significant impact, has been popularized as the notion of "the familiar stranger." (Milgram, 1972/1992). However, it was previously developed by Jane Jacobs in her famous critique of urban planning: *The Death and Life of Great American Cities*. (Jacobs, 1961)

For Jacobs, one of the defining aspects of cities is that they are composed of people who are almost all strangers to one another. Yet, in spite of this, cities exhibit a complex array of social processes that contribute to their order. What Jacobs returns to again and again are the relationships amongst strangers, and the environmental conditions which foster such relationships. She describes the ways in which strangers become familiar with one another, developing nodding acquaintances as they wait at the bus stop together, or patronize the same drugstore. (Milgram 1972/1992) reports that a study of pedestrians waiting at a subway stop indicated that almost 90% of those questioned reported recognizing at least one familiar stranger, the average being 4.)

It should be noted that the neither Jacobs nor Milgram viewed the familiar stranger relationship as the start of a closer, more intimate relationship. In Jacobs' view there is *not* an implied trajectory from nodding acquaintance to friendship. The beauty of such public relationships, and in fact a necessary condition for their easy formation, is that they are free of the obligations and "entanglements" of more intimate relationships. This lack of entanglement meant that, in Jacobs' words, "It is possible to be on excellent sidewalk terms with people who are very different from oneself..."

Yet, in spite of the relatively weak nature of the familiar stranger relationship, both Milgram and Jacobs viewed it as significant. Milgram suggested that someone would be more likely to come to the aid of another if he or she was a familiar

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[1] Portions of sections 3.1 and 3.2 are drawn from my yet-to-be-published essay, "Knowing the Particulars," which is a set of reflections on Jacobs' *The Death and Life of Great American Cities.*

stranger. Jacobs went even farther. Even if no familiar strangers are actually present, she argued, those who are on good "sidewalk terms" with others have, at a deep level, an expectation of support that will lead them to assist a stranger or to stand ready to help in an altercation. She refers to this phenomenon as "the trust of a city street":

> The trust of a city street is formed over time from many, many little public sidewalk contacts. It grows out of people stopping by at the bar for a beer, getting advice from the grocer and giving advice to the newsstand man, comparing opinions with other customers at the bakery and nodding hello to the two boys drinking pop on the stoop. ... Most of it is ostensibly utterly trivial but the sum is not trivial at all. The sum of such casual, public contact at a local level – most of it fortuitous, most of it associated with errands, all of it metered by the person concerned and not thrust upon him by anyone – is a feeling for the public identity of people, a web of public respect and trust, and resource in time of personal or neighborhood need. (p 56)

3.2 Online Systems: 'Community' or 'Sidewalk'?

Why should those of us involved in designing technologies be interested in Jacobs' analyses? For myself, I find that Jacobs' view of the nature of urban interaction provides a provocative model for thinking about online interaction. While it has been popular to use "community" as a framework for thinking about many-to-many interactions on the internet, I've become disenchanted with this as a general approach (Erickson, 1997). Online sites that function like real communities are rare. Instead, graphs of the frequency of interaction at most online sites follow a power law: most of the interaction is generated by a very small percentage of the visitors; the large majority are just passing through, perhaps pausing to look or read; of those who 'participate,' the majority do so once. These sorts of interactions seem much more similar to those that occur on a city's sidewalks.

If we think of most online systems as being conduits for flows of strangers – and strangers who would mostly prefer to retain their autonomy and avoid "entanglements" – then Jacobs' observations have much to offer systems designers. They suggest that in designing for trust we pay attention to the minimal and the mundane: the glance exchanged, the brief encounter in the course of other business.

It also suggests that, if we take seriously the notion that "sidewalk" may be a better metaphor for online systems that either "community" or "superhighway," that we might look more generally to the urban design literature for ideas on how to design online systems that can foster trust. For example, William Whyte, with his studies of the social life of small urban spaces (Whyte 1980, 1988), discusses the notion of triangulation, the idea that an object or event can sometimes cause strangers to begin talking to one another. And yet again, Christopher Alexander and his colleagues, in their work on pattern languages (Alexander et al., 1977) discuss the way in which spaces can be designed to permit the "utterly trivial ... casual public contact" that Jacobs speaks of.
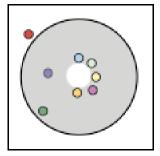
4. Designing for Trust Among Strangers

How does this translate into designing online systems? In this section, I suggest that there are at least two approaches to be pursued.

4.1 Designing Online Systems that Support Visibility

The first tack is represented by my own approach to designing online systems. The crux of the approach is to make participants in an online system visible to one another, using a minimalist visualization called a social proxy, that depicts people as dots, and uses movement of the dots to represent their activities in an online system. Figure 1 shows an example from the Babble chat system (Erickson et al., 1999). The circle represents a chat room, and dots inside the circle represent those present in the room (the dot outside the circle represents a user logged onto the system, but in one of its other chat rooms). When a person types or clicks, as one does when participating in a chat, his or her dot moves to the circles inner hub; when they stop typing or clicking, the dot gradually drifts out to the inner edge of the circle over the course of about twenty minutes. Thus, the configuration in Figure 1 shows five active chatters, two people who have gone idle, and an eighth who is in another chat room.

Figure 1. A social proxy for the Babble system.

This approach has turned out to be quite flexible, and provides a means for portraying activity in a large number of online systems ranging from activity in VoIP based conference calling to representing activity in online auctions and collective searches. See Erickson et al. (2002) and Erickson and Kellogg (2003) for other examples.

However, to date, the systems we've designed and implemented are intended for relatively small groups, and more importantly, groups that are convened in a business context, and have some sort of mandated purpose and an underlying set of rules and governance structure. These do not necessarily require much trust to prosper (or, perhaps another way to put it is that the constraints of the setting require less trust). To design systems that support less circumscribed interactions among strangers, I suspect that more work is needed to understand how to support trust-building interactions. Based on the reflections in this paper, I offer the following conjectures about how to design online systems that support the development of the sort of casual, lightweight trust that I've spoken of here.

4.2 Designing for Trust: Six Conjectures

1. Support Visibility

First and foremost, users of online systems must be able to see one another. Without the presence of others, an online place is solitary, and odd place for a social phenomenon like trust to exist.

2. Support Recognizability

Second, if we take Jacobs seriously, we need to allow the users of the online system to be able to recognize one another. This does not mean that real names or personal details must be revealed, but simply that participants must have a distinct and persistent identity that makes it possible for them to be recognized as the same person, over time and across places.

3. Support Non-Entangling, Minimal Interactions

I think Jacobs is correct when she notes that most people in cities are not in search, at least in general, of intimate relationships. If one can have an interaction, without fear of further entanglement, one is more likely to become enter into it. Interestingly, online spaces rarely support minimal interactions. Often, the most minimal interaction one can engage in with another is to start a conversation – which is not very minimal at all.

4. Support a Hierarchy of Involvement

Though people rarely come to an online space seeking to become involved, they can be lured into greater involvement, through a series of progressive (and positive) interactions. Of course, designing such a hierarchy of involvement is not an easy thing to do.

5. Support Triangulation

In line with Whyte's observation that external events can cause strangers to begin interacting with one another, designers of online systems might think of online equivalents. Scheduled events, or activities, or even things like interactive polls have been used in online systems to catalyze activity.

6. Provide Traces of Past Activity

As noted in the discussion of the blender story, trust doesn't occur on its own. Evidence of various sorts – from memories, to material tokens like sales slips that serve as 'proof' – provides a sort of scaffolding for trust. As trust grows stronger, it can span larger gaps in evidence, but at the beginning best not stretch it too far.

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