

Social Proxies

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Humans are social creatures. In the physical world of face to face interaction we pay close attention to what others do. We speed up a presentation when the audience begins to fidget; we forego stopping at the store when we see that the parking lot is jammed; we decide to eat at the restaurant that is crowded and noisy rather than the suspiciously empty one next door. The physical world is full of such socially salient information, and sociology provides a large literature that testifies to the many ways in which we use such cues to govern our own behavior and coordinate our actions with others' (e.g. Goffman; Whyte; Heath and Luff). However, in the digital world, our online tools and environments are almost devoid of socially salient information

A social proxy is an abstract dynamic graphical representation that portrays socially salient information about the presence and activities of a group of people participating in an online interaction. It is one technique for providing online, multi-user systems with some of the cues so prevalent in the face to face world. Social proxies are intended to be visible to all those portrayed in them, thus providing a common ground from which users can draw inferences about other individuals, or the about the group as a whole.

The shared nature of a social proxy is critical. The knowledge that activity depicted in the social proxy is visible to all participants makes it 'public,' and transforms it into a resource for the group. If I see something, I know that you can see it as well, and furthermore, I know that you know that I know. It is this mutuality that supports people being held accountable for their actions, and underlies the social phenomena—such as feelings of obligation, peer pressure, and imitation—that enable groups to interact coherently.

Figure 1 shows an example of a social proxy from the Babble system (Erickson, et al., 1999). Its purpose is to dynamically reflect the presence and activities of participants in Babble, a multi-room persistent chat system. The large circle represents a room that contains a conversation. The small colored dots within the circle depict people looking at that room's conversation; dots outside the circle depict people who are logged on to Babble but are in a different chat room. When participants are active—meaning they either 'speak' (i.e. type), or 'listen' (i.e. click or scroll)—their dots move quickly to the inner periphery, and then, when their activity ceases, gradually drift back out over about twenty minutes. Thus, this proxy depicts a situation in which five people are active in the chat room, two are in the room but idle, and one person is

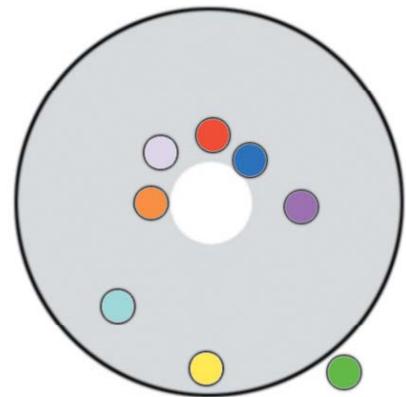


Figure 1. The Babble social proxy.

logged on but elsewhere.

Social proxies play a number of roles in online systems. One is to create a sense of place, or a feeling for the state of the interaction as a whole. For example, when users of the Babble system notice that its social proxy has a cluster of dots in the center, the experience is something like walking down the street and noticing a crowd: people gain a sense that something is happening, and, curious, are drawn into it. Another role of social proxies is to provide information that can indicate opportune moments for interaction. Thus, with the Babble social proxy, we have observed a phenomenon that we call “Waylay” (Bradner, et al., 1999). Waylay refers to the fact that a member of a Babble who wants to chat with another person who is currently idle may keep an eye on the Babble proxy, watching for that person’s dot to move into the center (which signifies that they have typed or clicked in the Babble application), and will then try to initiate a contact with them (perhaps via the Babble system, or perhaps by some other means such as the telephone or dropping by the office). Waylay works for two reasons: first, the movement in the social proxy alerts the waylayer to the activity of the contactee; but second, and more subtly, the contactee knows that their activity is visible and that the fact of that visibility is itself public. It is something like making eye contact with someone you know has a question for you: not only do they see you, but they see you seeing them, and thus you feel a greater sense of obligation. Social proxies can play a variety of other roles: by virtue of making that state of a group interaction public, they serve as a general resource which allows individuals, and the group as a whole, to be aware of and steer their collective activities.

Social proxies come in many forms and emphasize different aspects of online interactions. A number of systems —Chat Circles (Viegas and Donath, 1999), Fugue (Shankar, et al, 2000) and Talking in Circles (Roddenstein and Donath, 2000) — provide proxies for various forms of online chat. For example, Chat Circles depicts participants as circles in a 2-D online space, and their relative positions determine who can ‘hear’ whom. Social proxies are not just about supporting online chat. Gutwin, et al. (1996) designed a “radar view” of a large shared workspace that showed where various participants were looking and pointing. Similarly, Erickson and Kellogg (2003) show social proxies for supporting online auctions, lectures, and queues. The auction proxy portrays the participants (both viewers and bidders) in an online auction, and aims to recapture some of the drama of face to face auctions in which participants often end up bidding not just *for* an item, but *against* other bidders.

Social proxies are a relatively new technique for enriching the context of online interactions. We suspect that as computing power, network bandwidth, and the adoption of the internet for everyday collaborative activity continues to increase, social proxies will become increasingly common.

Further Reading

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