Social memory – an identity construction kit

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When the real is no longer what it used to be, nostalgia assumes its full meaning
- Jean Baudrillard

Introduction

Throughout every social interaction, our minds develop a mental model with which we understand the other people around us. We use this information to quickly infer potentially useful stereotypes, to determine what type of personality we must put forward and most importantly, to add to our memory, our mental understanding of both the individual and how this individual relates to previous mental models we have been utilizing.

We believe that it is more difficult to develop these mental models during online interaction. Potentially, this is because there are few visual cues from which we can associate our conversations and develop mapped memories. One approach is to mimic traditional visual cues, such as faces, in online environments so as to give users a better understanding of the people in their environment. While this is an interesting approach, adding faces or video to online interaction introduces different social consequences. We propose an alternative approach – a form of social memory – that allows users to construct intricate social profiles of one another.

Philosophy

Philosophers, scientists and other theorists have argued for centuries about how we construct a mental understanding of our surroundings. How does memory work? Why do some people rely heavily upon faces or other sensual reminders to dredge up past memories? What is the relationship between a memory in one's mind and the objects that relate to that memory? Or the actual event? How do we use categorizations to stereotype the people we meet and for what purposes?
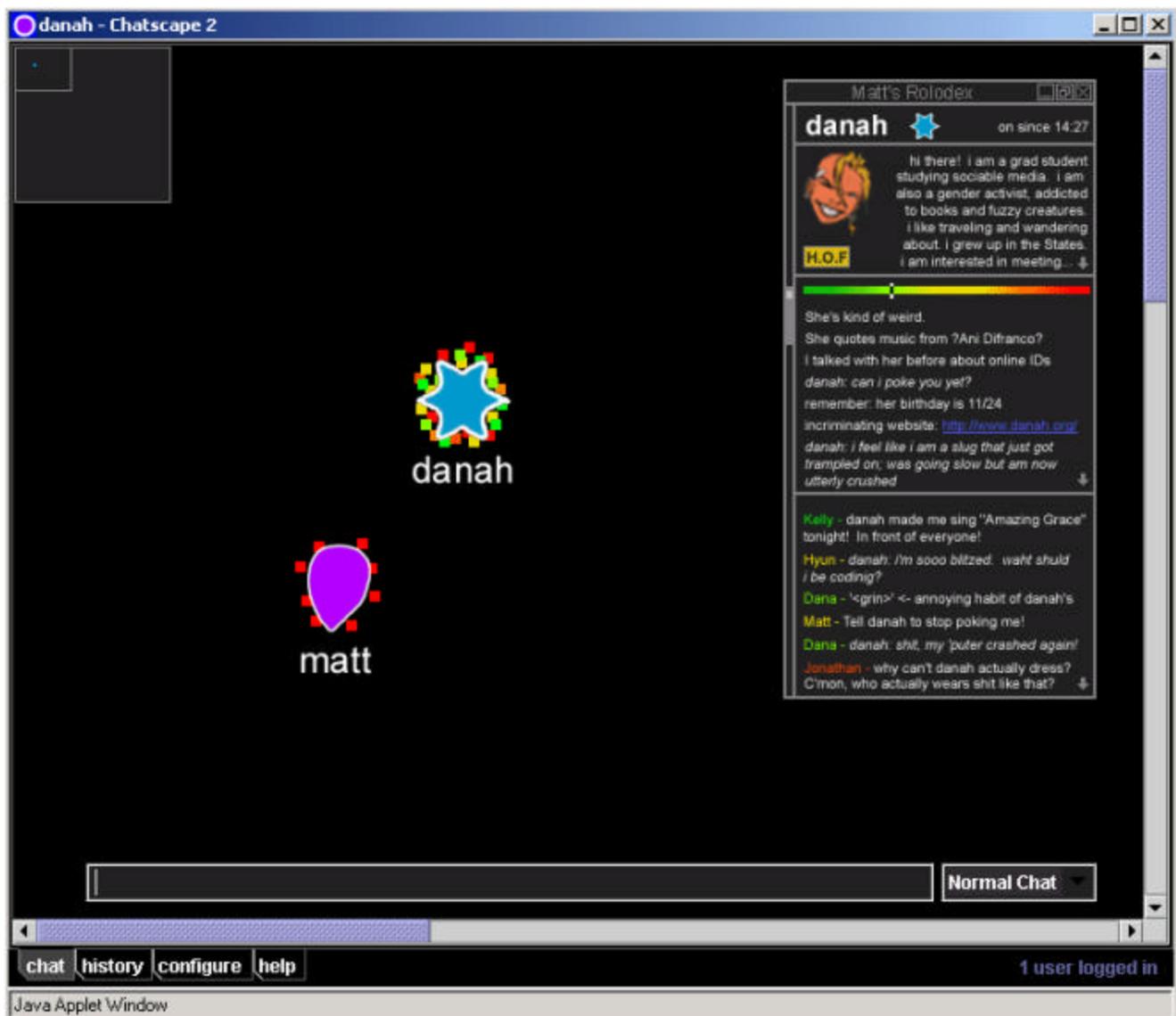
Regardless of how we develop these models, it's apparent that we use the environment, our stereotypes and our senses to develop an intricate mental model of the people with whom we interact. Like our memories, these mental models are not precise, and thus are constantly altered by experience and future interactions.

Online chat spaces lack the richness useful for developing these models, yet in order to have meaningful ongoing relationships, it's important to remember past events and associate them with the people, including our impressions and stereotypes as well as the conversation that we actually experienced.

Currently, there are minimal ways in which users convey information about themselves – through the names and images that they chose to represent themselves, through the profiles that they complete and through the text they produce.

Previous work in representing individuals usually focuses on portraying the data that is exchanged in historical interactions. Many textual and graphical chats portray their histories either through the way the text is represented or through a separate archive viewer, thus allowing individuals to view previous portions of the conversations [Donath 99]. Social visualization work – such as Xiong's "People Garden" and Karahalios' "Loom" – give users the ability to understand certain aspects of people's interaction in online social environments through visualizations of exact behavior, such as posting frequency and time [Xiong 99; Donath 99]. Even when users behaviors are represented, the focus is on capturing and representing the data that they produce instead of the experience that they have [Hill 92].

While recordings of historical interaction are useful, they do not represent the spectrum of experiences and emotions that people have in their interactions, thus failing to appropriately act as memories.

Social memory

Representing one's social memory requires not just understanding what previous interactions one has had but how one feels about these interactions. As a result, it is crucial to include the user's viewpoint in the representation so as to make the "memory" valuable.

Our prototype and designs present one way to manipulate and store information about other individuals in order to develop the desired social memory. We focus on allowing users to construct profiles, focusing on three primary lines of identity – public signal performance, private reading of others' signals, and public reading of others' signals.

Public Signal Performance

Current chat environments usually give individuals three different means for publicly signaling information about their identity – the name and/or image they use to represent themselves, the text they produce, and a publicly readable profile. These representations give individuals the stage on which to convey information that they believe that others should know about them.

In our prototype, individuals are able to profile themselves in any way they see fit. Initially, just the name and chosen visual representation occupy an individual's profile, but they are welcome to flesh this representation out with any text or images that they want to use to more accurately present themselves. Unlike most systems, there is no restriction (such as age/sex/location) to what individuals may use to represent themselves. Our personal profile allows other users to view everything that the individual wants to present.

Private Signal Reading

Although profiles are quite useful, they never accurately convey a person. As others interact with an individual, they build up personal mental images of the individual. Because the only representation of the individual is usually a handle (or questionably representative image such as Snoopy), it is difficult to build and maintain a mental model based on interactions and how one reads that individual. When presented with a profile as the other primary mode of representation, it's difficult to discern what is real or just presented as a performance.

Rather than giving more memorable images, we give the user the ability to mark up and store social interactions that s/he perceives as useful. This component can only be altered and read by the user who is making these marks, thus allowing one to mark up what s/he needs to accurately remember this person. There is a slider to simply indicate how the user feels about the individual. This ranges from "red" to "yellow" to "green" indicating disagreement, or disinterest, to neutrality to agreement or likeability. Following the slider is a series of text. This text can either be notes that the user writes about the individual represented or direct quotes dragged from the conversation in the main section. As a result, a profile is slowly built, ranging from newest addition to oldest. Only the user can remove marks that s/he put about the person represented; no one else can see these notes.

This personal memory component allows users to build up and filter what they feel is necessary about previous conversations or interactions, rather than having it constructed or maintained externally. This allows for simpler reviewing, focusing the user on what s/he feels is important to remember.

Public Signal Reading

Even more difficult than developing personal memories about previous interactions is the ability to simply communicate with other members of the community how one feels about another individual. In physical interactions, this is often done through body language and reaction style. This type of memory is quite useful when trying to understand context and develop a feeling of community. This also allows for the types of reputation and popularity scenarios that are both useful and problematic in physical interactions.

Rather than mimicking the behavior typically enacted in physical conversations, we focused on making it easy for users to publicly discuss and mark-up other people, yet requiring accountability for public commentary. Because of the public nature of this representation, public notes bring into question issues of reputation and privacy. The public notes represent anything that users want to publicly say about an individual, ranging from personal comments to quotes taken out of context. All of the public notes indicate the poster of the comment, allowing for some level of social responsibility, but it is quite easy to understand how this could be used to desecrate others. For example, quotes can be taken from this person and posted publicly, even if they were not meant for public perusal.

Because this is a reputation system of sorts, is important that users can't overwhelm the public reputation of others. For this reason, users can only post a limited number of public messages about others users. Messages are eliminated after short period of time so that things don't stay forever. While this information disappears over a period of time, it is possible for it to persist. Anyone can drag public information into hir personal record of a given person. Additionally, the individual can take this information and make it a part of hir profile, creating a type of "hall of fame." Like a book's cover maintains public comments on its contents, an individual can maintain public praises (or admonishments) on hir personality.

By creating a situation where public commentary is available, but not anonymous, users have the opportunity to develop a sense of both the people who are commenting on others as well as the individual being commented on.

Our prototype

These three components are represented in a pseudo-Rolodex that acts as one's memory bank. The Rolodex contains a card for every individual currently active in the system. Each person's "page" is split into three sections, with the top section representing the public performance, the second showing one's private commentaries on the individual, and the bottom containing the public commentary. Thus, when i am reading about an individual, i see what s/he has put up publicly about hirself, what i have written about this individual, and what other people have written about this individual. This allows for both an identity profiler as well as a tool for memory.

Since the publicly presented information about the user depends on how the viewer feels about the one writing the commentary, each public statement not only references the poster, but is also color-coded for easy perusal. The color depends on how valuable the user feels the public writer's comments are, as indicated by the aforementioned slider. For example, if danah doesn't appreciate Matt's comments and has indicated so by privately marking Matt as "red", all of Matt's public postings about any user in the system are colored red in danah's Rolodex.

In addition to the Rolodex, the graphical representation of every individual is surrounded by a cloud of "stickies" that stand for the public posts created about that person. Like the coloring in the Rolodex, each sticky is colored based on the poster who made the comment about this user. For example, danah can easily see that every public posting about Matt is colored green, which means that danah probably agrees with the posters so the commentary might be useful to read.

Due to the imbedded reputation system, it's crucial to maintain an accurate portrayal of who is saying what. In our prototype, no one can actually write "*danah says: Matt is weird.*" If danah says this in the public chatspace and it is dragged into the Rolodex, it will appear this way. If a user just writes the same phrase in the Rolodex, it will not appear italicized, indicating that it was not actually said within the system.

The structure of this prototype is all written within a graphical text chat, based on the work developed by Matt Lee for his Chatscape project.

Conclusions

By allowing users to construct representations of one another, our project helps chat users develop a memory of their interactions, a sense of one another and a better perspective for interaction. Although this model does not mimic the type of interactions possible in physical spaces, it gives users an alternative to relying solely on mental associations with arbitrary names.

References:

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[Xiong 1999] Xiong, R. and Donath, J. "PeopleGarden: Creating data portraits for users." *Proceedings of the 12th annual ACM symposium on User interface software and technology*. Ashville: November 7 - 10, 1999.