What is the mapping between input (e.g. typing, commands, mouse movements, etc.) and output in Chat Circles, Comic Chat (from your reading of the paper), and Second Life? How expressive is the avatar? What action drives that expression? How reliably does it relate to the user's intended expression?

In Chat Circles, the size of a circle depends on how recently and how much the participant typed. In addition, recently posted comments are displayed more brightly than others, and circle position indicates conversational groupings. While this does allow users to keep track of activity, it may pressure users to participate more than they would like to, since listening activity is not displayed. Perhaps allowing users to signal that they thought a particular point was interesting by brightening their circle after a key command would be useful.

Comic chat uses semantic parsing of messages to display gestures, although these capabilities appear to be somewhat limited. The perceived emotion is then rendered by choosing an appropriate configuration of a comic character. Certain types of dialogue balloons (denoting whispering or shouting, for example) can also be displayed. The semantic parsing described in the paper would appear to be accurate enough to be fairly reliable, but of course those statements that fall outside of the list of key phrases that the program looks for will result in avatar renderings that do not match with the message’s content. This may be forgivable by users if they learn how to use the system to display their desired emotions.

Second Life allows users to move in a more realistic fashion, since users can dance, look away, or even compose programs to manage their non-verbal gestures for them. All of these behaviors must be explicitly cued by the user, however, and it appears that there is very little automatic gesturing, save for an avatar becoming limp after being inactive for a long period of time.

Chat Circles avoids the problem of spurious expression by not having much in the way of expression. If you were designing the next generation version of it, what additional expressive capability would you build in, that is, what would the signal be (the visible action) and what would it indicate? How reliable would this signal be? For example, how would you implement a version of gaze (attention signaling)?

Signaling interest using an explicit command may be implemented by flashing the user’s circle, allowing users to perceive how interested others are in their comments. While this may not be reliable, since users could simply press this button while not actually attending to the conversation, it is most likely better than not being able to gauge conversational partners’ interests at all.
It would also be useful to explain conversation dominance, i.e. how much of the time a user has been speaking in a conversation. This could enforce more even participation by giving user’s an awareness of whether they are monopolizing a conversation or not participating at all. This may not be desirable in all circumstances, although since it would be automatic it may be a nice feature to incorporate. This is actually implemented in the Human Dynamics group’s Meeting Mediator, which also incorporates turn taking behaviors by examining verbal communication, but this is more difficult to automatically deduce in textual chat environments.

- Is gaze a signal for the Paulos and Canny PRoP? What does it indicate? What makes it especially important?

In Paulos and Canny’s PRoP the user can turn the screen and camera on the prop to denote gaze. While perhaps not as nuanced as gaze in a face-to-face conversation, it does allow users to signal attention and is preferable to video conferencing, where it is unclear exactly who is being addressed.

Interestingly, recently commercial PRoPs have begun to appear, in particular iRobot’s ConnectR (see image below). This form factor ignored Paulos and Canny’s advice about using video feedback on the PRoP side to reduce the feeling of being monitored. Still, it does appear that this form of interaction is fast becoming a reality.

- Bailenson discusses ways that avatars can be transformed to manipulate impressions. Is this “deceptive”? When is it desirable? For whom?

This may be deceptive if the receiver does not know that these manipulations are occurring, although it appears that even with this knowledge people cannot distinguish between transformed and natural behaviors, and these manipulations would most likely have an effect on the interaction. In this circumstance, social signals are more a signal of the signaler’s intent rather than an internal quality, such as interest in an interaction.
This may be desirable for the signaler in order to present a more powerful impression, or for the participants at large to facilitate smoother interaction. It is not hard to imagine, however, many cases when this type of manipulation will only be desirable for the signaler, since this technology gives them a potentially large amount of influence over others.