

**The poker paper directly addresses the issue of how changing the interface changes the relationship between signal and quality. Write a paragraph or two discussing these issues: In this domain (playing poker), what are the qualities that the players want to know about each other? What do they want to reveal? To hide? What are the cues and signals (in face to face poker, avatar online poker, our online poker) that indicate these qualities? Are they reliable? Why?**

In the domain of playing poker, there are qualities that the players want to know about each other in order to increase their odds of winning. Reputation is an important quality because one's decisions during a game might change based on whether one's opponent is known to be more aggressive or conservative. Players also want to try to gauge how good their opponents' hands are based on their opponents' reactions to their hands once the cards are dealt. However, each player, of course, also wants to hide this information from every other player and thus will try to act in a manner to confuse or mislead his opponents.

In face-to-face poker, one's facial expression is an important signal that may indicate the quality of how good one's hand is. It is not a reliable signal, however, as one may intentionally adopt a misleading facial expression (i.e. acting disappointed when his hand is actually very good) in order to confuse his opponents. One may also strive to have a neutral "poker face" expression at all times, in order to not give any indication of the quality of the cards he is holding. If one succeeds at having a good poker face, then this is not a signal, because it does not indicate any quality. But if one tries to have a good poker face, and fails by accidentally revealing information about his hand through his expressions or actions, then this is a cue as to the quality of his hand – it is unintentional, and likely not beneficial to the person producing it.

In avatar-online poker, the avatar that is assigned to each player is a cue as to the player's identity and reputation. However, it is a completely misleading and unreliable cue, as each player does not select his own avatar, and the stereotyped image that the avatar represents has no relationship to the player's actual identity and reputation. Also, the same avatar is used to represent many different players, as in the case where one player leaves the game, and another one joins, and the same avatar represents both. The reaction of the other players might be to associate the qualities of the departing player with those of the entering player, simply because they are represented by the same avatar, even though the two players have completely different offline identities and reputations.

**Evaluate the other technologies (chat circles, comic chat, fuzzmail, comTouch, and two of your own choosing). Think about them in comparison to face to face communication. What can be seen/heard/felt of the sender - i.e. what are the sensory constraints on signaling? How does this affect the reliability of the message? Is there a particular type of message that the medium is especially well (or badly) suited for**

**sending? How ambiguous are the signals - do you expect the sender and receiver to mean the same thing? Are there particular costs associated with the medium? Are they simply added costs or do they contribute to reliability? What modifications would you want to make to these interfaces to make them more or less reliable?**

**Chat Circles:** Chat Circles is an online chat environment intended to provide a better simulation of an in-person conversation than its online chat room alternatives by providing graphical displays of presence and chat activity of all logged-in users. The interface of Chat Circles makes it easy to see which users are the most active in participating in the conversation, and which users are idle, or lurking (i.e. still logged in, apparently reading/listening to the conversation taking place, yet not taking part).

Chat Circles' major benefit lies in its ability to better graphically portray conversations, based on who is participating, and how much each person is talking/chatting. Thus, this medium is better suited to having a focused conversation about a particular topic than would be a regular chat room environment without a graphical interface. But Chat Circles does not really improve the reliability of what each user says; the signals are still ambiguous, and the Chat Circles interface does not force the signaler to be more honest, or provide a way for the receiver to assess the reliability of what the signaler says.

One modification I might make to Chat Circles is to add some way to turn on an away message. Currently, if a user is away, or has been idle for a long time, then his circle will fade and shrink, but it is still shown on the screen as a faded dot, indicating some low level of presence even when there isn't any. If a user is actually away from his computer, and is not present at all, he should be able to somehow turn on an "away" message that will cause his circle to disappear from the interface.

**Comic Chat:** Comic Chat is a more fun way of representing an online chat environment, using a comic strip style to portray an online conversation between two or more participants. Each participant is represented by a comic strip character, and everything he says (or types, in this case) is displayed in a balloon. Comic Chat also lets users convey their emotions and feelings through being able to manipulate the gestures and facial expressions of their characters. This makes Comic Chat a better medium for expressing how one feels than a normal chat room environment, or even a program such as Chat Circles, since users can not only say what they are feeling, but they can also show it through the manipulation of their comic strip characters.

One of the problems with this medium is similar to the problem facing avatar online poker – the image of the comic strip character might lead receivers to make assumptions about the signaler's character, based on stereotypes related to the image, even though this image has no real relationship to the person's actual identity and personality. For example, if a person is represented by a comic strip cat, this might lead others to assume that the person is sly and conniving like a cat, even though the person is actually very honest and straightforward. The use of comic strip characters causes people to unintentionally give off impressions that are not necessarily accurate or reliable.

**Fuzzmail:** Fuzzmail is an asynchronous form of communication, similar to email, but more dynamic, in that it allows the recipient to see each word as it was typed, complete

with correction of typos, cuts and pastes, and other edits. This makes the message seem more reliable, as the recipient can gain insight into the sender's thought process and stream of consciousness at the time that the sender composed the message. Rather than receiving a finished product, the recipient is privy to the way in which the product was constructed. This makes the sender seem more human and fallible, as evidenced by his fixing of mistakes and typos, and thoughts that he might have started to express, but then changed his mind about.

The added cost associated with fuzzmail is that it is less efficient than email – each message takes longer to read, and this makes the process more tedious. One cannot simply skim a fuzzmail to get the gist of it; rather, it is necessary to watch as the message appears on the screen, letter by letter. This takes more resources from the recipient, and eliminates the ability to quickly scan the text and make a snap decision about it. One also has no way of knowing ahead of time how long the message is, and thus, how long it will take to read. This makes fuzzmail an impractical and inefficient communication tool for the business world, in which people are constantly trying to multi-task and work efficiently. I would modify fuzzmail by giving the user some indication ahead of time of how long the message is (i.e. including a note like: “This message will take 3 minutes and 20 seconds to appear.”) This would let users know if they had time to read the fuzzmail when it was received, or if it was better to save it for another time.

**ComTouch:** ComTouch add the sensation of touch to a regular cell phone call. This enables users to communicate non-verbally, as well as verbally, during a phone call. As in a regular phone call, nothing can be seen of the sender, but adding the sense of touch to what the user can already hear makes ComTouch a richer communication medium than a phone call by itself. Users can also take advantage of the haptics of ComTouch for increased privacy, by using the touch signals to replace verbal exchanges, in order to facilitate more discreet communication. For example, if someone wants to say to someone else “I love you,” but does not want to say this aloud in a public place, she can use the touch-based communication to send this message in code, assuming her recipient also knows the meaning of the touch-based code.

The touch-based signals can be rather ambiguous, however, especially if the sender and receiver do not know each other well, and do not have agreed-upon meanings assigned to these signals ahead of time. It might be very easy for a recipient to misinterpret a sender's meaning in sending a touch-based signal. Additionally, a sender could send touch-based signals accidentally by dropping the phone, or by squeezing it extra hard if a strong wind is blowing, for example. The recipient would not know if these touch-based signals were deliberate or unintentional, and would thus be even less successful at assigning them meaning.

**AOL Instant Messaging:** Instant Messaging is a tool enabling people to chat in real time. Unlike an online chat room, usually instant message conversations only take place between two people. But unlike email, instant messaging is more instant, as the name implies – people usually respond in a very timely manner, so that it simulates having a live conversation in real time, but with typing instead of talking. Each instant message tends to be shorter than an email, and is thus less time-consuming to compose. This

makes it a good way to catch up with people who do not like to spend the time to write a long email. It is also more dynamic and interactive, and therefore, potentially more engaging than a long, drawn-out email exchange. This makes it more comparable to a phone call. But unlike a phone call, instant messaging is also somewhat less threatening; the online, somewhat anonymous nature of the medium seems to draw shy people out of their shells, and it is less intimidating to send someone an IM than to call them on the phone.

One important feature of IM is the away message. This can be used as a communication tool, even when someone is not actively using the chat client. Some people leave themselves logged into IM all day, and use the away message as a way of updating their whereabouts. For example, someone's away message may say "I'm out having lunch at the food court," and thus, other IM users can keep track of this person by merely logging on, and without even having to interrupt the person or to have a conversation with them. However, users should be wary of using this feature too liberally, because the recipients of the away message are often unknown. A user might be on the buddy list of a relative stranger, who can then have access to this user's whereabouts simply by reading his away message. A user can control for this by blocking others (i.e. not allowing unknown people who are not already on his buddy list to see when the user is logged in).

**Voice mail/Phone tag:** Voice mail can be used as a communication medium for people who can't seem to ever reach each other on the phone at the same time, and instead communicate by leaving each other asynchronous voice mail messages, and playing "phone tag", until one finally calls when the other is available, and an actual phone conversation can take place. However, voice mail can still be an effective communication tool on its own. Plans can be made via voice mail messages, without the two participants ever actually speaking to each other. People can also use voice mail as a method to communicate when they don't actually feel like having a synchronous conversation with the other person. For example, if a person wants to give a message to someone else without having to actually talk to them, the person can call when he knows for certain that the recipient is not available and will not pick up the phone. Then he can leave his message without having to get involved in a more time-consuming and personal conversation.

With the advent of cell phones as well as regular phones equipped with caller ID, it is now very easy to screen phone calls. Thus, if a caller reaches a recipient's voice mail, instead of the recipient himself, this can either be a signal that the recipient is currently unavailable, or that the recipient is available, but is screening his calls and doesn't particularly feel like talking to that particular caller at that moment. It is impossible for the caller to know which of these is the case. Thus, voice mail is an unreliable signal of the call recipient's true availability.