

Sajid Sadi

Week 9

Establishing and Maintaining Long-Term Human-Computer Relationships

One of the interesting comments this paper makes is that there seems to be nothing in the sociological theory of relationships that would indicate that a computer would be unable to fulfill the necessary requirements for a successful relationship. However, the problem with that statement is that the studies are formulated against humans, and thus presume all the physical and mental abilities inherent to that supposition. It is not even the cognitive load that really stands in the path of computers becoming good relational agents, but their inability to sense in as many modes, with as much context and low-level analytic understanding, and with such social accuracy and noise immunity. In some cases, this is a technical problem. However, in other cases, it is rooted in the fact that computers are deterministic devices, and associative reasoning comes to them with much difficulty. In some sense, we have sidestepped this question by declaring it too hard after the failures of AI scientists to deliver on promises made in the early days of modern computing. However, it does very much remain an issue. That is not to say that the work today is not highly relevant, but at the same time, it is indicative of an upper limit. We can do a lot, even with a little ability, but we can't, in the end, do it all the way humans do.

Another interesting point is made about small talk. People do it. Computers generally don't. However, this is a chicken-and-egg problem. If computers did it, they would have to understand people enough not to go the way of Clippy. On the other hand, if the computers understood people that well, they would have no problem carrying out such social interactions, because they would already know what is expected when (because they would have to parse those utterances, match them against expectations, and calculate from the match the state of the relationship). In fact, which I was at CHI, the author chose to demo [FitTrack](#) and Laura live, and in the middle everyone was laughing. They were laughing because the agent was, despite all attempts, patently tactless and obvious in its goals. It was actually very good, but in the same way as Weizenbaum's Eliza system was good. It responded to the human being at the controls instead of simply minding its own business, and that was the important thing. Of course, this problem is worse in more anthropomorphic agents, which provides a convenient and helpful "out" for researchers. However, lacking a coherent theory of social interaction and context gathering, we are, as again, faced with a ceiling on the possibilities.

Also, When speaking of liking computers, it comes down to computer being a nice person, in the sense that we describe nice people. Additionally, trust seems to be based, like liking, almost completely on behavior, and not appearance. In that respect, I somewhat wonder if the costs of having an anthropomorphic embodied relational agent outweighs the benefits one gains from having it. Given all the holes in what we do know about social interaction, it would perhaps be simpler to hide the problems behind the façade of a computer than to put them forth and let users get frustrated when the system looks like a person but in the end acts like a computer.