Rapport and Relationship Building During Customer-Chatbot Service Encounters: Rationale and Suggestions

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Abstract. The showing of empathy to customers is often associated with satisfaction and trust in service domains. AI researchers have successfully built models for chatbots to recognise customers’ emotions from chat messages and render responses in appropriate empathic tones. Meanwhile, according to social psychology, people’s emotional expressiveness is highly subject to social influence. This paper suggests ways (e.g., active listening) of positively influencing emotional expressiveness in customers through rapport and relationship building.

Keywords: Empathy · Emotional expressiveness · Active listening

1 Introduction

By leveraging the Internet and various computing and mobile technologies, businesses have devised innovative ways to deliver customer service. A recent development is the deployment of conversational agents (CAs) on popular online messaging and social media platforms which assume the role of customer service representatives—henceforth referred to simply as employees in this paper—and respond to customer requests in real time through conversations [43, 14, 47]. CAs can be either text-based or voice-based, also known as chatbots and voicebots, respectively. The focus of this paper is mainly on chatbots although some of the ideas are also relevant to voicebots. Furthermore, following [27], the term service encounter is used in this paper to refer to contact between a customer and a service provider (employee or chatbot) not acquainted with each other.

A major thread of research in chatbot design involves modelling and detecting customers’ emotions in order to provide more affectively satisfactory responses [38]. In particular, researchers have found advantages in flourishing chatbots’ responses with empathic cues [20, 43, 15, 31]. Such cues may take the form of a prefix (e.g., “I understand your frustration.”) formulated in apologetic, gratuitous, empathic or helpful/supportive tone [28]. More elaborate schemes involve retrieval-based and deep-learning-based methods that produce even more natural human-like empathic responses [38].

Nevertheless, despite the appeal of the empathic approach, formulating empathic responses in the right emotional tones (e.g., mirroring the interlocutor’s
sadness versus cheering him/her up) throughout an encounter is challenging and highly context-dependent as discussed in [38]. Furthermore, for a customer service chatbot to recognise customers’ emotions (in order to respond empathically), it should arguably be designed to encourage, by ethical means, emotional expressiveness in customers in the first place as well as throughout a service encounter. Yet this latter idea does not seem to have received much attention in chatbot research and hence some consideration of it would probably be welcome. This is the position taken by this paper which set out to survey the literature for relevant theoretical ideas as well as empirical results on encouraging emotional expressiveness in general as well as in customer service encounters. The survey entailed a number of threads driven by the following questions:

1. What (attributes, relationships, behaviours, etc.) distinguishes those interlocutors who afford us to express more about our emotions?
2. In what contexts or circumstances do we tend to express more about our emotions to an interlocutor?
3. In the above two questions, what if the interlocutors are artificial agents?
4. In practice, do customer service employees purposefully or serendipitously encourage customers to be expressive about their emotions? If so, how?
5. Have any chatbots been designed in ways that purposefully or serendipitously encourage customers to be expressive about their emotions?

The above questions led the survey to literature in social psychology, customer service as well as chatbot and virtual agent research for plausible answers. The main outcomes and contribution include:

– The identification of two relevant socio-psychological concepts, namely rapport building and relationship building, with known effects on emotional expressiveness
– Intuitive suggestions inspired by related work on endowing chatbots with rapport and relationship building features and behaviours

The rest of this introductory section further highlights the importance of recognising customers’ emotions by chatbots and outlines some limitations and open questions. Sections 2 and 3 discuss how rapport building and relationship building, respectively, contribute to emotional expressiveness in customers with suggestions for chatbot design. Section 4 concludes this paper.

1.1 Recognising Customers’ Emotions: Challenges for Chatbots

Traditionally, empathy is a desirable competence that enables employees to understand customers’ experiences, take their perspectives and connect with them emotionally [16, 17, 23, 12]. Such abilities help increase customer satisfaction [37, 42] and gain their trust [1, 37]. Effective empathy depends on accurately recognising others’ emotions in the first place [7, 29]. In daily situations, people’s emotions can often be observed in real-time from their faces and body language or recognised through the tones of their voices, e.g., one may say “I am fine.” in
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a depressing tone which shows sadness [6, 19]. Such non-verbal cues are mostly spontaneous and need not be accompanied by corresponding verbal expressions as in “I am fine but still very sad.”. Consider an example discussed in [5]: a customer may express displeasure spontaneously through facial expression in the event of a service failure during a face-to-face encounter. A seasoned employee would pick up the facial expression in real-time and recognise the emotion without the customer expressing it verbally. But how about if the encounter were online text-based? Research findings [18] suggest that online text conversation as a mode of computer-mediated communication (CMC) need not be less emotionally involving than face-to-face communication, i.e., people find their ways to express emotions in text using various styles and conventions (e.g., emojis). Studies (e.g., [43]) have found substantial use of emotional expressions in text by customers during their chats with employees on social media. However, it is not yet clear whether customers can be just as emotionally involved and expressive when the customer service representatives are not human but artificial agents [13]. While there have been some research (e.g., [3]) in human-agent interaction based on participants’ self-reports on how they feel about interacting with humans versus chatbots through online text, studies that actually measured customers’ emotional expressiveness in online text during conversations with customer service chatbots are still rare.

Theoretically speaking, the “computers are social actions” (CASA) paradigm [33] suggests that people could respond mindlessly to computers in accordance with social rules that are meant for responding to other humans. Given that customers do respond emotionally to human agents during online text conversations [43], presumably according to prevailing social rules, it is plausible, as per CASA, that they could be strategically induced to be emotionally expressive when conversing with chatbots. This calls for an understanding of what in a human agent’s verbal behaviour contributes to emotional expressiveness in customers during text-based service encounters and how chatbots might exploit such verbal behaviours.

On the other hand, there is some evidence that people may show less closeness in terms of interpersonal relationship in their conversations with chatbots than with other humans [36]. This reflects the idea that people adapt their verbal and emotional expressions in conversing with others depending on the intimacy of their relationships or social bonding with the others [21, 45]. How customers perceive the closeness of their relationships with a chatbot will likely affect their emotional expressiveness toward the latter. Nevertheless, it has been shown that chatbots can establish intimate relationships and emotional connections with users through online-text conversations over time [46]. Hence, strategies of customer-chatbot relationship building should also be considered.

2 Rapport Building and Emotional Expressiveness

Customer-employee rapport has been identified with “enjoyable interaction in which participants connect on some level” [25]. Valued by both customers and
employees, the feelings of rapport during a service encounter contribute to satisfaction on both sides [4]. On the nature of rapport between two interacting individuals, it has been argued that rapport promotes affectively-charged social bonding through spontaneous emotional communication in which expressiveness in one encourages the other to be expressive, thereby increasing the richness of the overall communication process as well as facilitating mutual understanding [8]. In the context of customer-employee interaction, expressiveness in the form of non-verbal cue such as eye contact, smile, back-channel response (e.g., head-nodding), etc. is widely practised by service employees to build rapport with customers [34, 25]. Seasoned retail employees build rapport with customers by expressing courtesy explicitly [26]. In phone-based, voice-only customer service encounters, employees are expected to excel in “how the vocal qualities of tone, pitch and warmth combine with energy and enthusiasm to produce fluency and rapport” [10] and in using “voice as a tool to shape and control conversational mood” [10]. Mimicry in voice tone, type of language and pace of speech can also increase rapport [26].

Despite the lack of non-verbal cues such as eye contact or voice tone, researchers have found that online text conversation as a mode of computer-mediated communication (CMC) could be as emotionally involving as face-to-face communication [18]. In [40], the nature of rapport is described in terms of feelings experienced and expressed by interacting individuals in three aspects, namely, mutual attentiveness, positivity and coordination. Attentive, imitative, courteous, connecting behaviours have been identified as conducive to employee-customer rapport in retail settings [26]. In particular, attentive behaviours can take the form of active listening which involves acknowledging, repeating, paraphrasing, elaborating (customers’) ideas, summarizing and asking questions [12]. In the case of online text conversations, expression of active listening by a chatbot may include:

- Acknowledging a reply/confirmation
- Repeating a customer name
- Paraphrasing/Elaborating a question/request
- etc.

According to the general structure of a service encounter [12, 44]: (1) Opening/Greeting → (2) Customer identification → (3) Purpose identification → (4) Issue/Request definition → (5) Issue/Request resolution → (6) Closing, employee empathy is most useful in the later phases (4-5) when customers’ issues and corresponding resolutions are communicated and hence customers’ emotional expressiveness is most needed. In order to create an expressive conversational mood, employees need to establish rapport with customers in the early phases (1-3) where the appropriate emotional tones for employees’ utterances are relatively straightforward and well-defined: e.g.:

- Pleasantness in greetings
- Politeness and gratitude in customer identification
- Helpfulness in purpose identification
- etc.
3 Relationship Building

Emotional expression is viewed by many researchers as a means of social coordination [41]. How people express emotions to others is highly context-dependent [21] and shaped by their motives and relationships with the others [24, 30]. Such human sensitivities have been shown to cover relationships with chatbots in experimental studies [32, 36].

In a recent study on people’s verbal behaviours during initial online text conversations with human friends versus an AI chatbot [32], participants were found behaving relatively less open and less self-disclosing when conversing with the chatbot. In an earlier study [36] based on the Desert Survival Problem (DSP) task, all participants performed the task on a keyboard and a screen in collaboration with a remote interlocutor. Their beliefs about the interlocutor were manipulated—either as a chatbot or another participant—when in fact they all interacted with the same chatbot. The results showed more relationship-oriented (e.g., saying ”thanks”) verbal statements as well as more emotionally-charged hostile statements used towards minimally introduced human co-participants than towards a chatbot. The researchers in both studies took the view that the chatbots did attract social responses from participants, as per the CASA paradigm [33], but to lesser extents than the human counterparts in the same role did. To explain the differences, it was suggested that participants might be less motivated to build relationships with the chatbot than with the human counterparts [36].

This paper shares the view that participants responded mindlessly, as per CASA, to chatbots but considers their relative indifference to the chatbots as partly a result of a couple of “nuances” in their relationships with the chatbots versus the human counterparts. First, participants had had no prior contact or communication with their interlocutors in the case of a chatbot whereas, in the case of a human (real or as told by the experimenter) interlocutor, participants had either known or met the interlocutors beforehand. In other words, only the chatbots were totally unknown and unmet strangers to the participants; the human interlocutors were either known or minimally introduced to them. This corresponds to people’s tendency of being less emotionally expressive towards others without personal relationships [9]. Secondly, while participants were not supposed to expect any further development in their relationships with the chatbots after the studies were done, it would be the opposite case regarding the human counterparts. Even the outlook of relationship development would have some effects on participants’ responses in these studies according to [27]. In the context of customer service, customers would be more concerned about relationships with service employees whom they expect to revisit.

Based on the above reasoning, a customer service chatbot needs to overcome as quickly as possible the customer’s initial impression of it as a total stranger who would be interacted with for just a single encounter ever. This can be achieved by means of relationship building such as:

- Exchanging names during the initial greeting contributes to interpersonal trust and hence relationship building [35, 39, 22].
– Giving chatbots a “humanized” profile picture with self-introductory information (e.g. role, background, capabilities, personality traits, etc.) can provide some emotional expressiveness effects according to a recent study [11].
– Raise the customer’s expectation/awareness of potential future encounters with the same chatbot.
– Personalising the chatbot’s responses based on past interactions with each individual customer would give a stronger impression of customer-chatbot relationship [2].

4 Conclusion

Enabling chatbots to show empathy has become an active research topic recently. This paper considers means of encouraging customers to express their emotions during service encounters so that chatbots can respond in appropriate empathic tones. Based on a review of the relevant research literature, the rationale for rapport and relationship building has been discussed, together with suggestions for chatbot design.

Acknowledgement

The author would like to thank the anonymous reviewers for their comments and suggestions on an earlier version of this paper.

References