

Chapter 5

Theoretical Foundation and Hypothesis

ABSTRACT

Chapter 5 begins by introducing the fundamental concept of Emotion Perception, examining how the ability of users to interpret and engage with the emotional outputs of chatbots influences their interactions and overall satisfaction. It then transitions into a discussion on Emotion Governance Theory, which proposes a structured approach for integrating and managing emotional responses within chatbots to ensure these interactions are both ethically sound and contextually appropriate. Following this, the chapter explores the concept of Behavioral Quality, emphasizing its pivotal role in mediating the relationship between the chatbot's emotional outputs and user satisfaction. Finally, it presents a series of carefully formulated hypotheses aimed at testing the relationships between these variables, setting the stage for subsequent empirical investigation.

5.1 EMOTION PERCEPTION

In exploring the concept of emotion perception within the context of government chatbots, it is essential to differentiate between two distinct perspectives. The first pertains to how government chatbots perceive the emotions of the public. For instance, when individuals interact with these chatbots and exhibit signs of impatience or frustration due to unsatisfactory responses, the chatbots, equipped with emotion recognition technologies, can detect these emotional cues and modify their responses to better address the user's needs. The second perspective focuses on how the public perceives the emotional expressions of the chatbots themselves. This involves the anthropomorphic features that chatbots may exhibit, such as the use of humor, expressions of empathy, or manifestations of happiness. The perception of these emotional expressions by users can significantly influence their satisfaction

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and overall experience with the chatbot. For example, a chatbot that successfully projects empathy in its interactions could enhance user trust and satisfaction, thereby fostering a more positive engagement.

This analysis primarily centers on this second perspective, investigating the impact of chatbots' emotional expressions on public perception and interaction outcomes. The anthropomorphic attributes of chatbots, while designed to mimic human emotional expressions, must be carefully calibrated to ensure they align with the expectations and cultural norms of their users. Understanding this dynamic is crucial for optimizing chatbot design and enhancing the effectiveness of digital communication in public services, aiming to create more engaging and emotionally intelligent interfaces that resonate with and meet the emotional needs of the public.

Emotion perception, particularly from the perspective of how the public perceives the emotional expressions of government chatbots, involves understanding the extent to which users recognize, interpret, and respond to the emotional cues that these artificial agents emit. The anthropomorphic design of chatbots, which includes their ability to simulate human-like emotions such as humor, empathy, and joy, plays a crucial role in enhancing user interactions. Such emotional expressions are intended to make interactions more natural and engaging, potentially increasing user satisfaction and trust in automated systems.

Existing literature supports the assertion that the emotional capabilities of chatbots significantly affect user perceptions and interactions. For instance, studies by McQuiggan and Lester (2007) show that the integration of emotional intelligence in automated agents can lead to higher perceived trustworthiness and engagement from users. Furthermore, Zhou et al. (2020) explore how emotional intelligence in chatbots affects user satisfaction, revealing that users tend to have more positive experiences and higher satisfaction levels when interacting with chatbots that can mimic human emotional expressions accurately. Another critical aspect discussed by Paiva et al. (2018) is the users' ability to empathize with emotionally intelligent agents, indicating that when chatbots exhibit emotions that users can empathize with, it strengthens the bond between human and machine, enhancing the interaction quality. This finding aligns with the view that emotional perception extends beyond mere recognition to encompass emotional resonance and empathy, elements that significantly influence the effectiveness of service delivery by chatbots. Moreover, research by Pfeuffer et al. (2019) emphasizes the role of context in how emotions are perceived and interpreted by users, suggesting that the effectiveness of a chatbot's emotional expressions can depend heavily on the situational context, such as the seriousness of the service or the user's emotional state. Gratch and Wang (2015) highlight the importance of emotional bonding in interactions with conversational agents, demonstrating how such connections can enhance user trust and cooperation. This notion is further supported by Beale and Creed (2015), who detail how emotional

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