

AI and Emotions: a literature review

Andreassen Tor, Del Vacchio Erica

Purpose: Some studies (e.g., McCallum & Harrison, 1985) have defined service encounters as human interactions or dyadic exchanges between a customer and front-line employees. However, the evolution of the pandemic forced to an increase in technological/digital solutions; in some cases, productivity rose, but the *touch* side of the interaction certainly vanished. Both businesses and researchers have become aware of the crucial role of emotions/touch in service exchanges as it influences the engagement of consumers in service and co-creation of value (Solnet *et al.*, 2019). Thus, high-tech should be balanced with high touch, as already stated by marketing scholars (e.g., Anderson, 1995). Similarly, in a recent study, Rust and Huang (2021) identified two types of AI systems: low-feeling AI, capable to analyze text and emotional data, and high-feeling AI, namely a technology featured with emotion recognition and simulation. Therefore, attention to emotions may be facilitated by AI which, today, can read and 'change' the mind (De Keyser *et al.*, 2019). Hence, AI may increase high tech but at the same time may increase high touch. Indeed, firms should realize in which services or tasks this can happen. Although researchers have investigated the influence of AI and emotion in service encounters, extant studies are fragmented and disconnected, also because of the novelty of this topic. Our study answers the call for future research (e.g., Larivière *et al.*, 2017) and tries to better understand where does, if at all, emotions fit in AI.

Methodology: We carried out a systematic literature review of peer-reviewed articles in the past 29 years (1992-2021). First, we select only the articles in English present in the most used databases in the management field, Web of Science, Scopus and Science Direct (Tian *et al.*, 2018). Secondly, we choose a narrow search criterion using keywords ('AI', feeling*, service*, emotion*) in the 'topic' of academic articles to limit ourselves to articles interested in addressing the issue under study. Finally, by analyzing the title, research results and conclusions of these selected articles, we choose only the most relevant sources related to the field of AI and emotions in service encounters. Based on total 51 paper, the authors identify key research and development patterns.

First evidence: Our findings reveal that most studies have focused on human-robot collaboration while recent research trends have focused on the use of emotions in decision-making processes. Further, current study show that tourism and hospitality are the industries where AI and emotion are relevant topics to manage service encounters. Findings show that the most used tools to collect emotional data and integrate them into one's AI algorithms are 1) social networks, 2) face, speech, and image recognition, 3) neural networks. Current review highlight that there is a complex relationship between employees and their emotional intelligence and AI's features (e.g., body, voice, human semblances etc..) in service encounters.

Research limitation/implication: In line with recent service literature, our analysis recognizes that emotions must be treated as a continuous phenomenon occurring within and outside the service context, where the experience of service encounters is linked to a broader human experience (Lemon and Verhoef, 2016; Fisk *et al.*, 2020; Huang and Rust, 2021a). Further, our review confirmed that AI's ability to recognize human emotions supports employees in offering personalized services and emphasize emotional tasks and be people-oriented (es. Frey & Osborne, 2017; Huang and Rust, 2019, 2021b).

Practical implication: In a constantly updated service context, managers must be able to exploit the advantages of AI not only in terms of replacing human work but also for its ability to recognize emotions. Following this logic, AI can guide managers to provide emotional responses and service encounters based on communication, understanding and experience.

Originality: This work offers a better understanding of the impact of AI and emotion in service encounters. Through a systematic review of the literature, the role of AI and the emotion in service encounters were clarified, capturing the advantages and challenges still open.

Keywords-*Artificial intelligence, AI feeling, service encounters, consumers, emotions*

Paper type – Research paper