

Social Media Between Artificial & Emotional Intelligence

Auhoud Sultan AlShehail¹

Abstract

Emotional and artificial intelligence has become ubiquitous in the era of social media, with both entities being essential components of the modern digital landscape. Specifically, emotional intelligence is crucial in understanding and predicting user behavior on social media platforms. Conversely, AI is continually being adopted for various tasks, from sentiment analysis to content personalization. The study explores emotional and artificial intelligence from a different theoretical perspective to provide an in-depth understanding of the two phenomena. The research focuses on emotional intelligence in the era of social networks and the utilization of artificial tools and data with the central concept of being interactive and using data.

Keywords: *Social Media, Artificial Intelligence, emotional intelligence.*

Introduction

The research focuses on emotional intelligence in the era of social networks and the utilization of artificial tools and data with the central concept of being interactive and using data. Emotional artificial intelligence uses technology to learn, sense, and interact with the emotional life of human beings. The ability of the technology to interact with human emotional changes has resulted in its use in healthcare, customer service, and advertising. Hence, the advancements in artificial emotional intelligence are significant in the contemporary world, where social and business interactions are achieved using artificial tools and data. This has also resulted in increased competitiveness in the different fields of operation that employ emotional artificial intelligence to study humans to carry out their day-to-day operations [1].

Furthermore, the advancements in emotional artificial intelligence keep improving from time to time regarding their accuracy in determining an individual's emotional state. However, there have been several debates on the effectiveness of the current approaches. On the other hand, researchers believe that using emotional artificial intelligence to determine the human state of emotions is still in its early stages of development. Hence, emotional artificial intelligence and the broader concept of automated human state measurement need continuous legal, social, ethical, and cultural analysis to improve its functionality and feasibility in the different fields of operation [2]. The research paper focuses on emotional intelligence in the era of social media and the utilization of artificial tools and data with the central concept of being interactive.

The rise of social media platforms has significantly impacted how people communicate and express themselves. This new environment allows emotional intelligence to be expressed and shared more broadly. Emotional intelligence is expressed on social media through how users post their thoughts and feelings and share them with others worldwide in real-time [3]. This widespread exposure to various emotions also allows artificial

¹ Mass Communication Department, King Saud University, Riyadh, Kingdom of Saudi Arabia, aalshhail1@ksu.edu.sa

intelligence (AI) to influence user experience on social media platforms. AI can detect, analyze and respond to human emotions through text, images, or videos posted online. Through this application of AI, companies and organizations can gain insights into how their customers feel about specific products or services, allowing them to make more informed decisions.

AI can also help people make better connections by providing personalized recommendations based on their emotions. Ultimately, emotional intelligence and artificial intelligence are becoming intertwined in the new era of communication enabled by social media platforms. With deep learning capabilities and natural language processing algorithms, computers can detect subtle nuances in human emotion that can be used to facilitate more meaningful interactions between people, making social media a powerful tool for expressing our thoughts and feelings [4].

Methodology

This paper draws upon a review of relevant research and studies related to emotional and artificial intelligence. The framework of the research is grounded in social constructionism since humans use symbolic to interpret the meaningfulness of the environment they exist in.

Literature review

This literature review will be founded on cultivation, affective, and affective forecasting theories. Studies have shown that the three theories have important implications for designing and using artificial intelligence (AI). For instance, cultivation theory suggests that the media we consume can shape our perceptions of the world and influence our attitudes and behaviors. In the context of AI, this means that how AI is depicted in media, such as movies and TV shows, can shape our expectations and attitudes toward AI. Affective forecasting theory suggests that people are only sometimes accurate in predicting their emotional responses to future events. In AI, people may need to accurately predict how they feel about interacting with AI or having AI perform specific tasks. In addition, affective forecasting theory and AI intersect in designing and using AI systems that aim to recognize and respond to human emotions.

Based on Cultivation theory, people who spend more time engaging with media content are more likely to view the world in terms of its representation within the given medium. Specifically, a person will perceive specific topics and situations as “normal,” regardless of their experiences. Regarding emotional intelligence and AI, this theory could explain how social media platform users may accept specific ways of expressing emotions as “normal” based on what they see other people doing online. AI-based emotion recognition algorithms could detect these expressions and create personalized content or recommendations that encourage users to express their feelings in a certain way.

On the other hand, Media logic theory suggests that media content is created based on specific “logic,” meaning that it follows a set of predetermined rules which influence how it is structured and presented [5]. This theory suggests that different media types have unique logic, ultimately shaping the messages they convey and the emotions they elicit from viewers. With regard to emotional intelligence in social media, media logic theory could be used to explain why certain expressions of emotions are more widely accepted than others. AI-based emotion recognition algorithms could detect these logics and create content or recommendations that encourage users to express their feelings in a certain way [6]. Such influence can help improve the experiences of social media users by providing content or recommendations that accurately reflect their feelings and encourage them to express themselves more constructively.

Additionally, Affective forecasting theory is a psychological concept that suggests that people can accurately predict how they will feel in the future based on their past experiences. This could explain why certain expressions of emotion are accepted or rejected within a given social media platform. Regarding emotional intelligence and AI, affective forecasting theory suggests that AI-based emotion recognition algorithms could accurately predict how a particular user is likely to respond to certain content or recommendations [7]. If used ethically, such information may benefit social media companies. It would enable the platforms to create personalized experiences depending on individual users' emotional needs.

However, if used unethically, companies could misuse such predictions to manipulate users' emotions to get them to buy certain products or services. Several authors have examined emotional artificial intelligence in the era of social media interactions in different fields of operation. In the past, organizations used surveys to understand how consumers felt and their opinions towards their products and services. Furthermore, many organizations and professionals in the contemporary world have used emotional AI technology to analyze human emotions, which is vital in making informed decisions. However, the technology may need to be more accurate and evolve to improve its ability to detect human emotions in different circumstances [8]. The emotional AI technology may also be biased as its analysis is subjective to emotions which may have different meanings in different regions. Further, it does not consider cultural differences among people who use social media platforms to express themselves. This may negatively impact the decisions made from their analysis. Hence, business organizations using emotional intelligence to make significant decisions should consider the barriers based on their location of operation to make accurate analyses to apply to their businesses.

Moreover, technology influences the decisions of individuals by providing personalized information on what they might want from business organizations. Even though the consumers' decisions may be affected, the technology also allows for incorporating their preferences depending on what they need compared to the traditional advertising methods that do not consider the consumers' emotions. Contemporary businesses incorporate feedback, improving overall performance as organizations and professionals act according to the consumer's needs and wants. This promotes competitiveness in the industry and makes the decision-making process easier for managers in business organizations. Further, human emotions can be used to determine future improvements that can be made to the emotional AI technology to improve its functionality and accuracy in detecting human emotions.

Finally, the emotional artificial intelligence operations in the era of social media have intensified due to increased interactions among individuals, as indicated in the research studies. This is because individuals relate to and input data on social networks that can be used to determine several actions in the organization. Further, the input data reflects the consumers' needs and wants in the cases of businesses that provide goods and services. The interactions also influence the individual's behavior and opinions as they can access much information from social media platforms. Additionally, emotional AI uses the information in social media to determine the consumers' views depending on their focus and response to different issues. The role is significant for organizational leaders when making complex decisions requiring consumer input.

The literature review revealed that emotional and artificial intelligence are essential to the modern digital landscape. According to Kim et al. [4] emotional intelligence is critical to understanding user behavior on social media platforms. The authors believe that emotional intelligence influences how users interact with content, respond to messages, and make decisions [4]. On the other hand, artificial intelligence has become an integral part of social media, especially in analyzing user behavior and interaction on social media. AI has been widely adopted with applications ranging from sentiment analysis to content personalization [9]. Research indicates that users express their emotions more

freely on social media than in other contexts. For example, Stark, Luke, and Jesse found that people are likelier to share experiences with strong emotions, such as joy and anger, on social media than in real-life conversations [10]. This is likely due to social media's increased sense of anonymity, allowing users to express their feelings without fear of judgment or criticism.

AI can be beneficial for understanding and responding to human emotions on social media platforms. Wei et al. [11] indicated that AI algorithms can detect emotions from text, images, and videos. For example, sentiment analysis algorithms can detect the sentiment of a user's post and react with appropriate responses or content recommendations. AI can also help organizations gain insights into customer sentiment by analyzing posts related to their brand or products. This can provide valuable insight that can inform marketing and product development decisions.

Shankar et al. [12] conducted a study understanding emotional intelligence discourse on social platforms with the use of insights from Twitter. The topic is relevant to the research as it focuses on emotional intelligence data analysis using a specific media platform, Twitter. Further, the study's main aim was to determine the role of micro-blogging Twitter in getting insights concerning emotional intelligence by focusing on the platform's analytical framework and processing the user language. Moreover, the method selected several tweets extracted using hashtag emotional intelligence through a network, descriptive and content analytics. The chosen data analysis indicated that psychologists, motivational speakers, and business companies mostly use emotional intelligence tweets to spread information and advertisements, create awareness, communicate with the concerned stakeholders, and conduct recruitment and hiring processes [12]. In addition, the results reflect social platforms' utilization for deeper insights into emotional intelligence through people's communication. The tweets on social media platforms reflect the individuals towards a particular issue which could be used to determine their emotional status depending on the topic of discussion [12].

Another study was conducted by Wei et al. [11] regarding sensing the social platform consumer's emotional intelligence in different networks. The study focuses on the consumer's emotions using different social networks, increasing the accuracy of the results regarding emotional intelligence in the social media era. The objective recognizes that the platforms have been incorporated into the daily lives of a vast population of individuals globally through their interactions and way of life, making it an essential aspect of the study to determine its interaction with emotional intelligence. From the user's connections and other significant elements, the social platform's data could be used to give modified services to the consumers depending on what they dwell on in their interactions when using social networks using emotional intelligence analysis. The study's key findings indicated higher emotional intelligence scores for females than males.

Further, the results indicated that the emotions of the different social networks reflect the emotional intelligence analysis of their interaction. Analyzing consumers shows a significant connection between social media and emotional intelligence interaction. From the study findings, the future should consider grouping the users into other characteristics such as age and race to determine emotional intelligence in the era of social networks and the utilization of artificial tools and data with the central concept of being interactive and using data in advertising.

Emotional salespeople based on customer orientation and emotional intelligence study focused on the salesperson's interaction with the consumers [13]. This is relevant to the main topic as it explores the interaction of salespeople related to advertisements and customer orientation using emotional intelligence. The study's main aim was to determine the connection that involves the emotional intelligence of the sales individuals and their type of customers. Further, the study employed 167 Brazilian sales individuals using

validated scales to determine the connection between the two as impacted by emotional intelligence. The study's results indicated that the variability in the consumer's orientation was significantly affected by the emotional intelligence level, which increases with time from interactions with other consumers. Further, the findings indicated that emotional intelligence is higher in older sales individuals and that emotional intelligence differs following the economic areas in which the sales individuals engage. The results could mean that more senior salespeople have the experience of interacting with different consumers hence the ability to determine what they want depending on their gestures [13]. Further, various economic sectors vary in the approaches employed in marketing depending on the products and services offered [13]. The multiple organizations use methods similar to the utility consumers derive from their products and services to convince them to purchase. Hence, the salespersons' emotional intelligence varies depending on a number of the consumers' characteristics that determines their orientation.

Erol et al. [14] determined the impact of emotional AI on cooperative social human-machine interaction. The study analyzes the techniques employed in emotional AI to determine human emotions. The results of the study indicated that the machines could detect human emotional changes [14]. Determining human emotions is significant in emotional artificial intelligence that could be applied in different fields of operation, such as healthcare, to determine what the patients feel, improving the quality of services provided. Selecting human emotions plays a significant role for companies that depend on the consumer's preferences and opinions to make crucial decisions, such as the steps they should adopt in their daily operations. Managers may use the study results to make informed decisions depending on the consumers' preferences and choices as determined from the social networking data that consists of several interactions on a given issue.

Conclusion

In conclusion, emotional intelligence in the age of social media plays a significant role in reshaping how the media operates. This is achieved through artificial tools and data to measure the emotional status of human beings and their perceptions of different things. Further, social media platforms allow people to express opinions on different thoughts, goods, and services. Also, their emotions and preferences are determined, which makes operations easier by providing the organizations with deeper insights into what they might need. Emotional artificial intelligence keeps evolving to increase its accuracy of interaction in determining the human emotions that are vital in making significant decisions. With advanced technological advancements, organizations can accurately employ emotional artificial intelligence in making informed decisions on what to produce based on analyzing consumers' input on social media platforms.

Furthermore, artificial emotional intelligence through the interactions and communications on social media platforms impacts the user's perception and responses. Social media platforms allow interactions with individuals, creating a positive connection with their opinions and perceptions of other things. Artificial emotional intelligence incorporates various themes in the advertising field and social media interactions to determine how business operations should be conducted using human emotions. The measurement is based on the nonverbal cues such as tone and gestures that are interpreted to determine how the different individuals feel in their interactions, such as interactions with the consumers to get their feedback concerning the services of a given company. The process is significant for the managers to make informed decisions on what they should do, such as what strategies they should employ when advertising their goods and services in the market.

References

1. Bobrow DG. Artificial intelligence in perspective: A retrospective on fifty volumes of the artificial intelligence journal. *Artif Intell.* 1993;59(1-2): 5-20. doi: 10.1016/0004-3702(93)90163-6.
2. Grover P, Purva, Kumar Kar A, Dwivedi YK. Understanding artificial intelligence adoption in operations management: insights from the review of academic literature and social media discussions. *Ann Oper Res.* 2020;308(1-2): 177-213. doi: 10.1007/s10479-020-03683-9.
3. Hendler J, Mulvehill AM. *Social machines: the collision of artificial intelligence, social networking, and humanity.* Apress; 2017.
4. Kim J, Lee D, Park Eunil. Machine learning for mental health in social media: bibliometric study. *J Med Internet Res.* 2021;23(3): e24870. doi: 10.2196/24870, PMID 33683209.
5. Busselle R, Van den Bulck J. Cultivation theory, media, stories, processes, and reality. *Media Eff.* 2019: 69-82.
6. Klinger U, Svensson J. The end of media logics? On algorithms and agency. *New Media Soc.* 2018;20(12): 4653-4670. doi: 10.1177/1461444818779750.
7. Colombo D, Fernández-Álvarez J, Suso-Ribera C, Cipresso P, García-Palacios A, Riva G et al. Biased affective forecasting: A potential mechanism that enhances resilience and well-being. *Front Psychol.* 2020;11: 1333. doi: 10.3389/fpsyg.2020.01333.
8. Schuller D, Schuller BW. The age of artificial emotional intelligence. *Computer.* 2018;51(9): 38-46. doi: 10.1109/MC.2018.3620963.
9. Chowanda A, Sutoyo R, Meiliana S, Tanachutiwat S. Exploring text-based emotions recognition machine learning techniques on social media conversation. *Procedia Comput Sci.* 2021;179: 821-828. doi: 10.1016/j.procs.2021.01.099.
10. Stark L, Hoey J. The ethics of emotion in artificial intelligence systems. In: *Proceedings of the 2021 ACM conference on fairness, accountability, and transparency*; 2021. p. 782-793. doi: 10.1145/3442188.3445939.
11. Wei X, Xu G, Wang H, He Y, Han Z, Wang W. Sensing users' emotional intelligence in social networks. *IEEE Trans Comp Soc Syst.* 2020;7(1): 103-112. doi: 10.1109/TCSS.2019.2944687.
12. Shankar S, Tewari V. Understanding the emotional intelligence discourse on social media: insights from the analysis of Twitter. *J Intell.* 2021;9(4). doi: 10.3390/jintelligence9040056.
13. Dos Santos AA, Dornelles M, Crispim SF. Emotional salespeople: customer orientation and emotional intelligence. *Rev Negócios.* 2020;25(1): 56. doi: 10.7867/1980-4431.2020v25n1p56-67.
14. Erol BA, Majumdar A, Benavidez P, Rad P, Choo KR, Jamshidi M. Toward artificial emotional intelligence for cooperative social human-machine interaction. *IEEE Trans Comp Soc Syst.* 2020;7(1): 234-246. doi: 10.1109/TCSS.2019.2922593.