Emotional Hermeneutics. Exploring the Limits of Artificial Intelligence from a Diltheyan Perspective

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ABSTRACT

This paper explores the intersection of emotional hermeneutics and artificial intelligence (AI), examining the challenges and potential of integrating deep emotional understanding into AI systems. Drawing on Wilhelm Dilthey's distinction between "explanation" and "understanding", the study highlights the current limitations of AI, particularly large language models, in achieving a genuine interpretative understanding of human emotions. We argue that while AI excels at data-driven explanations, it lacks the capacity for true emotional comprehension due to its inability to have personal experiences and self-awareness. The paper proposes incorporating humanities and social sciences insights to enhance AI's ability to contextualize and interpret emotions. However, it acknowledges that replicating human emotional intelligence in AI may be fundamentally limited by the nature of artificial systems. The study concludes by calling for interdisciplinary collaboration to advance emotional AI research while recognizing the ongoing philosophical questions about the nature of intelligence, and emotional understanding.

CCS CONCEPTS

• **Human-centered computing** → **HCI design and evaluation methods**; • **Computing methodologies** → **Philosophical/theoretical foundations of artificial intelligence**.

KEYWORDS

Emotional hermeneutics, emotion understanding, human-computer interaction

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1 INTRODUCTION

Intelligent techniques have emerged in recent years, especially in natural language processing where large language models like GPT have been developed [1, 18]. These models are the most accurate for text generation and translation and redefine how people communicate with technology [23].

However, there are new discussions regarding the LLMs' shortcomings, and Artificial Intelligence's (AI) in general, such as their inability to grasp and analyze multifaceted contexts that only humans can comprehend. Thus, for instance, van Dijk et al. [20] have pointed out that, while LLMs can process large amounts of data and generate linguistically meaningful outputs, they do not incorporate the ability of "understanding" as humans do. In this regard, Agüera y Arcas [1] underline that social interactions are not only cognitive processes but also emotionally charged events, which LLMs are not able to model yet.

This paper aims to answer the multifaceted question of whether AI can gain a profound knowledge of emotions in people and consider the consequences of different types of AI's emotions for communication with a person. It should be noted from the very beginning that the application of Dilthey's concept of understanding to AI is a complex issue, even though we continue the tradition of using the distinction between "explanation" and "understanding" that Dilthey initiated. When we talk of AI emotions, we are talking of a mimicry of emotions and not an understanding as Dilthey defined it.

With this important qualification in mind, we discuss how various hermeneutic conceptions that arise from Dilthey's ideas might be integrated into AI frameworks to improve machines' capacity to understand the context and meaning of human feelings. Dilthey's paradigm points to the current AI methods' shortcomings as they primarily rely on the explanation, not the profound understanding of the subject as it is done by an emotionally intelligent person.

In turn, based on the presented considerations, we suggest that while the hermeneutic-inspired approach to emotions is valuable for a more profound evolution of AI's understanding of human emotions, the idea of replicating human emotional experience in AI presents significant challenges. The disparity between individuals' emotional complexity and the current computational architecture of AI is a notable limitation. However, this does not necessarily preclude the development of sophisticated emotional intelligence in AI systems in the future. While achieving emotional intelligence exactly as Dilthey envisioned for humans may be improbable, emerging AI technologies and interdisciplinary approaches offer promising avenues for creating systems that can meaningfully engage with and respond to human emotions in novel and potentially beneficial ways.

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2 "EXPLANATION" AND "UNDERSTANDING" IN DILTHEYAN HERMENEUTICS

Wilhelm Dilthey, who lived in a time when AI was far from being conceived, has provided a key distinction that is still relevant in the current debate on AI and, in particular, on LMMs. In his effort to distinguish between the natural sciences and the humanities, Dilthey outlined two different methodological approaches: "explanation" and "understanding" [5]. "Explanation" falls under the category of the natural sciences since they employ observation, experimentation, and quantitative reasoning to determine the laws that govern physical occurrences. This process of explanation aims at the reduction of phenomena into their parts in order to provide a causal account that can be used for prediction and control.

According to Marinotti [10], Dilthey claimed that the human sciences cannot be united because of their logical structure which is, in some way, similar to that of the natural sciences but the relation between them has to be seen in the light of its historical evolution during the process of the establishment of relations. Thus, Dilthey established a distinction between explaining and understanding: explaining means an inductive-deductive approach with practical logic that formulates general laws using the data of experience, whereas 'understanding' means introspection and hermeneutic practice.

Although the inductive approach is good for identifying patterns and trends, it is at odds with the richness of human experience that is always rooted in specific cultural, historical, and individual contexts. This limitation is reflected in the ability of LLMs to process language: they can understand learned rules and patterns and can generate texts using them, but they can not understand the deeper meaning or further nuances that arise from the practical experience and contextual knowledge that define human intelligence. The inductive method of machines is entirely mechanical and does not contain any emotion that enriches the human mind. They are closely connected with human understanding since they help to define the meaning and value of the experiences, enhancing perception and appreciation. Thus, while AI, and LLMs in particular, provide an inductive reasoning approach characteristic of natural sciences in their methodology, the nature and extent of their knowledge remains different. They mimic the form of inductive logic by proceeding from specific instances to more general principles, but they are not capable of handling the rational, normative, and theoretical components that characterize scientific investigation.

Therefore, as scholars continue searching for the real definition of knowledge, they are compelled to incorporate human factors into AI. For this purpose, humanities and social sciences are most effective in making the machine as complex as the human being.

For example, literature is the expression of human emotions and interactions; this allowed AI to receive a vast number of cases and perspectives to learn from. In this manner, through narratives, AI can begin to grasp what empathy, ethical questions, and existential concerns are inherent to human beings. Similarly, the visual arts help in understanding the human mind as every stroke painted on the canvas or every figure carved out of stone has a history behind it. The inclusion of these aspects in the training sets of AI can improve the machines with an additional interpretative layer.

It is not a question of enhancing the applicability of AI in humanities or human production, but rather of integrating these two domains of artificial and human intelligence. It aims to create AI not only to analyze data but to understand the fullness of people's lives. The inclusion of humanity into AI entails that the AI is more human and thus able to grasp the complexity of human civilization and feelings, which leads to a deeper AI.

3 EMOTIONS IN HUMAN UNDERSTANDING

Emotions are the essential components of people's and animals' rationality, and their application to intelligent machines is a significant and interesting task.

Indeed they have a very significant impact on decision making and problem solving. They are not just emotional outbursts, which are quite the opposite, they are specialized ways of thinking that engage certain cognitive processes for handling certain situations. This is well illustrated in human beings and animals, particularly in the primate model. Feelings like fear, joy, and sadness are not only determinants of an individual's conduct but are also prerequisites for group solidarity and conflict regulation. Furthermore, in primates, emotions help create and sustain social bonds, and cooperation within the group [4].

Integration of affective factors into the AI systems entails developing machines that are capable of identifying and interpreting the emotions of people to enhance the interaction between the human and the machine [13]. A system that can modify its responses according to the mood of the user is considered to be more effective and enjoyable. This approach is not limited to pre-writing down logical responses but involves a more complex integration of emotions as part of the machines' cognition [11].

Furthermore, individuals need to experience emotions as they are required in human social interactions [4]. This is more so the case when it comes to the creation of AIs that are deployed in sociotechnical environments. The knowledge of human feelings will help machines communicate with people in a more proper way, and, therefore, such technologies will be more helpful and welcome in people's lives.

Dilthey's hermeneutics also brought into focus the understanding as opposed to the explaining as a major concern. It focuses on the cultural and historical values of experiences by generating feelings as a way of interpreting them. It does not merely gather facts but tries to find out the personal significance of events, events in which one is involved.

As we discussed in Section 2, the hermeneutics of emotions reflects on the historicality of every emotion and the significance of the context which has to be considered for the correct comprehension. This helps us to view them not only in isolation but as part of the biography and a culture that we are part of. Hermeneutics enables one to get an idea of how these contexts shape the way we perceive the world, which is why this approach is essential not only for the humanities but also for building intelligent technologies. Thus the integration of the study of emotions into hermeneutics serves several key purposes:

- **Deep understanding**: Hermeneutics can be defined as an analysis of emotions that goes beyond their surface in order to understand their origins. This is in relation to the historical

and cultural antecedents of emotions through which they are expressed.
- **Empathy and Dialogue**: Hermeneutics enables people to communicate with consideration and understanding of the other party while accepting the fact that people are multifaceted and can experience various emotions.
- **Contextualization**: This way emotions are contextualized, which means that they are not universal but rather depend on the cultural and social setting in which they are being experienced. Hermeneutics indicates how these contexts affect our emotions in this manner.
- **Self-Awareness**: Hermeneutics can be seen as a way of increasing self-awareness as it provides people with a certain knowledge of their feelings and motivations. This process may result in the growth of one's character and improvement in the way emotions are dealt with.

However, integrating emotion hermeneutics into AI also presents significant challenges. The complexity of human emotions, their subjectivity and cultural variability require extremely sophisticated and sensitive models.

4 INTEGRATING EMOTIONS INTO ARTIFICIAL INTELLIGENCE: MAYBE AN INSURMOUNTABLE LIMIT

In the recent past, there have been efforts made to seek emotional analysis and recognition of feelings with the help of technology or taking into consideration cognition, affect, and behavior.

For instance, the significance of comprehending emotions in terms of culture and history became apparent to provide a better grasp of the matter. For instance, efforts have been made to apply the automatic techniques for the analysis of the sentiment of classical literature to the texts of antiquity [12, 16, 17]. Some other authors have applied methods based on fluid dynamics for the emotional evaluation of theatrical productions [15].

Studies have been done on how cultural factor influences how people display their emotions through gestures [2], how cultural factors influence the generation and interpretation of facial expressions [19] and how emoji is used in the Eastern and the Western culture [7]. As for the previous research, we have also found that cultural background also affects entitlement [22].

These works are examples of how technology and AI can be used to analyze and investigate emotions and feelings in various fields ranging from literature to law, and how it can be of help in providing new ways of understanding and analyzing data.

Although there is a lot of work being done as of now to mimic emotions, we are however not yet close to being able to incorporate systems of emotions in AI. They can learn the facial expressions, pitch of the voice, and other body signs that denote emotion and therefore, can feign an appropriate emotion depending on the occasion. However, this simulation is not the same as actually feeling that emotion or being able to understand it.

The difficulties that AI faces in perceiving and developing self-awareness can be attributed to several key factors:

(1) **Lack of Personal Experience**. AIs lack personal and subjective experience. Self-awareness is developed through an ongoing process of reflection on lived experiences, feelings, and interpersonal relationships. AIs, on the contrary, operate on data extracted from external sources without true personal experience, making it difficult to authentically "understand" emotions as the Dilthey suggests.
(2) **Rigidity of Algorithms:** AI algorithms follow predefined rules and mathematical logic that are not easily adapted to the fluidity and complexity of human emotions. Emotions are often ambiguous and contradictory, requiring interpretative flexibility that AI does not currently possess.
(3) **Lack of Self-Reflection:** Self-awareness requires a process of self-reflection involving the recognition of one's own biases and limitations. AIs cannot reflect on themselves or develop a critical sense of their operations and decisions. This limits their ability to fully understand emotional dynamics.
(4) **Dependence on Training Data:** AI is highly dependent on the data with which it has been trained. If these data do not adequately represent the variety of human experiences, AIs may have a distorted or incomplete understanding of emotions. Self-awareness requires a holistic and dynamic understanding of emotions that goes beyond simple data analysis.

However, it is possible to argue that AI may help in the analysis of emotions to the extent that is compatible with Dilthey's level of understanding while, of course, AI itself cannot achieve that level. Essentially, AI is bereft of empathy since it lacks self-identity, and subjective feelings, which are fundamental in the process of experiencing emotions. Comprehension involves the ability to grasp what people intend to convey and conveyance. It is a process that entails empathy as well as self-awareness and a historical and cultural approach.

According to the observations made by Picca [14], for understanding and knowledge, an interpreting agent is needed. This agent does not only see patterns but "understands" data with cultural and emotional twists. AI, which is based mostly on pattern recognition, cannot reach this sort of genuine Diltheyan "understanding". They are deprived of the ability to reflect on oneself and be a subject, which is crucial for real comprehension of human feelings.

The requirement of an interpreting agent suggests that emotional hermeneutics becomes necessary. Hermeneutics is a complex process of understanding that needs self-reflection and interaction with the other without focusing only on the information. Interpretation is the way by which one is able to assign meaning to data, which in effect turns the data into knowledge. Lacking this interpretive component, AIs only get stuck in the shallows of knowledge, not being able to comprehend the subtlety and depth of feelings.

Furthermore, information per se is not enough to encode meaningful machines. Data must be converted to knowledge and wise knowledge by interpretation that includes context and culture [14]. This is a task that AI cannot currently perform on its own. They can handle big data and recognize correlations, yet they lack the ability to comprehend the significance of this information in most cases, and this is where humans need to step in and explain the meaning of the data obtained.

So, while AI offers powerful tools for the analysis and explanation of emotions, it is through hermeneutics and deep understanding

that we can truly grasp the complexity of human emotional experience. Adopting an approach that integrates explanation and understanding, as suggested by Dilthey and deepened by Picca [14], can enrich our use of AI technologies, promoting greater empathy and awareness in human interactions and scientific research.

5 CONCLUSION

The attempt to introduce AI to the understanding of human emotions lays down a vast philosophical area that raises questions about the nature of emotion and intelligence. Although contemporary AI applications have shown great advances in the fields of emotion detection and emulation, there still exists a significant difference between the skills of AI systems and the richness of people's emotions [9]. Such a division encourages us to reflect not only on the methodologies of AI technologies but also on the very definition of the intelligence of emotions.

The incorporation of hermeneutical theories of emotions into AI systems' paradigms is an area of potential development. In this way, based on the philosophical and humanistic approaches, it is possible to outline the ways to improve the AI's ability to consider the historical, cultural, and personal aspects of emotional experiences. However, this approach raises issues of what it means to have understanding as a base for one's decision-making.

As we enter this area, we have to remember that our knowledge about human emotions is still quite limited. The human brain is intricate, and it is very difficult to mimic or understand fully some inner processes. This uncertainty gives a rather appealing prospect for the further creation of AI. As the concept of neural networks and cognitive functions become more refined, it is possible to find out that there exist similar mechanisms in superior AI designs that have not been imagined yet [21].

Among the ideas related to AI systems, the concept of emergent properties can be considered an interesting area of study. The more advanced AI networks become the more complex and sophisticated the behaviors and capabilities may become and in this respect simulate emotional understanding in ways that are beyond the current paradigms. These emergent properties could potentially mediate the difference between the ability to recognize emotions and the ability to have a higher form of feeling.

Moreover, the concept of synthetic experience for AI systems also gives another way of developing emotional intelligence. However, by training AI with a lot of synthetic data and simulations it is possible to make the systems get a sort of taste of real life [8]. This might make it possible for AI to get the context that would be in a manner that is way beyond the first degree of analysis and slightly similar to how a human being understands feelings.

The further evolution of Generative AI together with the employment of both the symbolic and the neural AI systems might help create Emotional AI [3]. These combined systems could thus help solve some of the problems associated with today's technology, and offer a better approach to understanding feelings [6].

However, as we continue to chase all these improvements, there is a need to take a moment and think about the difference between human feelings and AI calculations. Thus, even in the sense in which Dilthey understood it, it is still questionable whether AI will ever be able to have an accurate understanding of emotions. Maybe, human emotions per se are sensitive and qualitative – and cannot be grafted into artificial systems at all, in full.

Such portrayal of the constant dialogue between AI performance and human feelings not only sheds light on the subsequent formation and development of AI studies but also helps to foster the process of human thinking and feeling.

The way ahead in the area of emotional AI research requires the constant cooperation of computer scientists, cognitive psychologists, philosophers, and many more. This interlinkage is important in creating an AI that can effectively understand and respond to the variance in human emotions while recognizing the differences between a human and an artificial intelligence.

Thus, even if the task of developing AI systems with deep emotional intelligence is difficult and even theoretically unattainable in its purest form, the process itself is informative and can be useful in various fields. In our future research and development of emotional AI, we need to be ready to broaden our view on what intelligence, consciousness, and the nature of the understanding of emotions are.

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