
ROLE OF EMOTIONAL INTELLIGENCE IN THE WORLD OF ARTIFICIAL INTELLIGENCE

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ABSTRACT

We all are living in a time of digital transformation, even if we don't know about it still, we can feel it. Cities are becoming digital and are getting ready and preparing their strategies and smart cities. Robots are taking some of the high preside jobs and they are doing the job better than humans. Emotional Intelligence is taking time to understand oneself and others' emotions which includes self-awareness, self-regulation, empathy, social skills, and Motivation. It is a relatively new field in research in Artificial Intelligence but it has great potential to do immense good for people. However, the technology can be misused. In this conceptual paper, we would like to focus on the same and make a point that it is up to people who would embrace the change because humans in technology will decide whether the technology will be used for good or bad. Everyone has the responsibility as human behavior to make a positive difference in the world of Artificial Intelligence.

Keywords: *Artificial Intelligence, Emotional Intelligence, Emotional Artificial Intelligence etc.*

1. INTRODUCTION

In recent decades we have seen some noteworthy development in artificial intelligence. Now AI is become a part of everyone's life, helping in booking holidays, hiring a cab, capturing great photos, and discovering new content for media. AI is been far ahead and used in many activities and to name a few incompetence images, recognition, and health care professionals can now be diagnosed with certain diseases. AI is becoming new general-purpose technology that will be as impactful on the economy as the steam engine, internet, and many more. The influence of AI will change the structure of the businesses, creating a future workplace for employees.

"AI works on the capacity to make predictions and decisions, which makes entry-level workers more autonomy and reduces the need for middle management," said Alex Xi He, an assistant professor of finance at Smith School of Business of Maryland. This research found that AI using

firms changed the composition of the businesses. Adopting AI in firms will shape the future workplaces by hiring workers with (science, technology, engineering, and math) training, analytics, and IT experience.

The topic of emotional intelligence (EI) has witnessed unparalleled interest in every professional and popular literature. The term Emotional Intelligence is a couple of years old. It was initially created during the 1970s and 80s by the work and compositions of psychologists Howard Gardner, Peter Salovey, and John Mayer. EI originally showed up in 1985 in a doctoral dissertation by Wayne Leon Payne, which he named "A Study of Emotion: Developing Emotional knowledge". His proposition on emotional intelligence included an outline to enable people to develop emotional intelligence. Later it was instituted by Daniel Go leman, who initiated writing a book on the subject.

1.1.NEED FOR THE STUDY

Emotional intelligence helps people to increase their emotional self-awareness, expression, creativity, trust, and integrity within and around the organization. Emotional intelligence plays a crucial role and becomes one of the top important criteria for evaluation for judgment to identify the effective employee in an organization, this will help increase productivity and build trust between the organization and people. With AI we can discover the learning pattern and adapt to new changes and better network.

2. OBJECTIVE OF THE STUDY

The objective of this study are as follows

- To study the theoretical aspects of AI & EI.
- To examine the determinants of EI of employees at the workplace.
- To know how AI & EI has benefited the organization.

3. REVIEW OF LITERATURE

(Jaleel*, 2017) The paper led a concentrate on the connection between the capacity to understand people on a deeper level and hostility among an example of 90 samples of students at the

secondary level. It was concluded that there is no relation between emotional intelligence and aggression.

(Gupta, 2017) The author reviews his paper and explains concepts based on artificial intelligence, in this paper we can see some of the areas in AI and techniques as well. The field of AI will give the ability to understand the machines to think analytically, using concepts. AI will show its importance and will increase its role in various fields. The paper says that there is a lot of scope for the future to do promising studies and explore more areas where AI will be impactful.

(Ambare, 2015) The author has reviewed the historical study in AI. It is believed that upcoming era of digitalization the need for AI with machine learning will be a crucial role to make the world easier to do things in various fields. This paper will boost the youth to know more about technology and build the technology in a better and most effective way that will support everyone.

(Gayathri, 2013) This paper drops the evolution of emotional intelligence as a theory and gives a literature review on the same. The theory will show its potential to predict and improve the life skills of individuals. There are many questions raised in this paper on theory whether this will be a tool to measure or it's just the reworking of the same old concept with no proper foundation. Despite much research, there is still a search for the concept of IQ or EI as the best to measure. To judge or criticize EI to a different standard needs to rethink.

4.1. Contribution of AI

Artificial intelligence is designed to make decisions, using real-time data. AI is now getting used in several fields from simple mobile phones to diagnosing diseases providing high performance and accurate system work with efficiency. When we look into the fields where AI is spread across, we can know the important role of AI which will help humans in their respective workplaces to perform better. The current use of AI is in

- Shopping, Retail, and Fashion
- Sports Analytics and Other Activities
- Production and Manufacturing unit
- Stock and Inventory Management
- Autonomous Vehicles or Self-driving cars

- Medical Imaging Analysis and Healthcare
- Logistic Supply Chain and Warehousing
- Gaming
- Security
- Education

4.2. Contribution of EI

- Complex problem solving
- Critical thinking
- Creativity
- People Management
- Coordinating
- Cognitive flexibility
- Negotiation
- Leadership
- Job satisfaction
- Relationship

5. EMOTIONAL INTELLIGENCE

EI is the ability to perceive, control and evaluate the emotions of oneself and others. Some researchers suggest that EI can be learned and strengthened, others claim it's just an inborn characteristic. Having the ability to express and control emotions is very important, but it is also equally important to understand, interpret and respond to the emotions of others. Researchers also suggest that there are four dimensions of emotional intelligence including emotion perception, the ability to reason using emotions the ability to understand emotions, and the ability to manage emotions.

Daniel Goleman says emotional intelligence is composed of four elements that each contain various skills to understand a person's emotions.

Emotional Intelligence improves self-confidence within people. It also focuses on achieving the goal. To improve one's life and lead a success it becomes important to understand emotional intelligence. By working to understand one's current emotions and emotional strengths and weaknesses, we can take certain steps to improve so that a person performance his/her job better and enhance the overall teamwork.

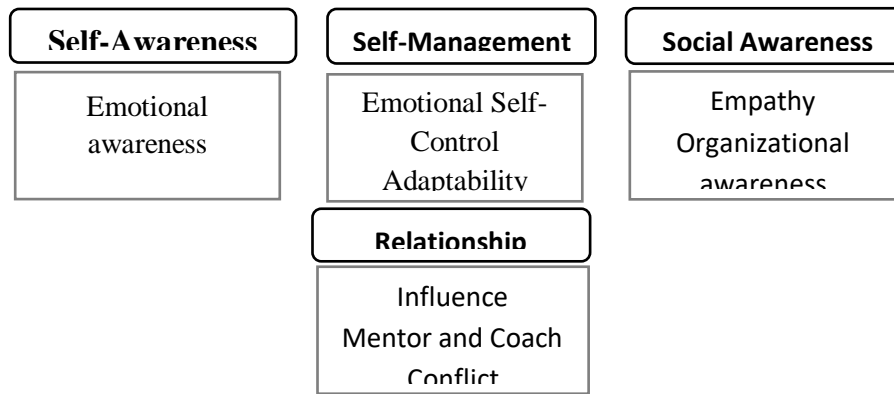


Figure 1 - Components of Emotional Intelligence

The theory of emotional intelligence was presented by Peter Shalvey and John D Mayer in the year 1990. And further created and brought to the lay public by Daniel Go leman. When emotions is track high, they change the way our brain functions our cognitive abilities, decision-making powers, and even interpersonal skills. Understanding and managing our emotions help us to be more successful in both our personal and professional lives.

At a personal level, emotional intelligence will be helpful in

- Manage emotions of our self when stressed or feeling overwhelmed
- Improve relationships with the people we care about.

At the work level, emotional intelligence will be helpful in

- Resolve conflict
- Guide and motivate others
- Build psychological safety within teams

(Pawliw-Fry, n.d.)

6. EMOTIONAL INTELLIGENCE IN THE WORLD OF ARTIFICIAL INTELLIGENCE

In today's world, communication is being increasingly filtered through digital media. Now the time is when more people instead of interacting face-to-face conversation, send chat messages or spend time on a video call. We now prefer online shopping and if we encounter any problems there, we turn to chat bots. This screen is not always beneficial for people often, the

communication is distorted, questions are misinterpreted, and as a result, frustration grows. (Bossen, 2020)

What if the technology that sometimes hampers our communication could help to optimize it? Researchers and futurists are optimistic and claim that emotional AI will do just that in the future.

Emotion AI, also known as affective computing, is essentially all about detecting the emotions of people using artificial intelligence. Machines with this sort of capacity to appreciate people on a deeper level can figure out the mental as well as the emotive channels of human communication. That enables them to detect, interpret, and respond appropriately to both verbal and non-verbal signals.

In the research field, a lot of work is being put into imparting an emotional understanding to machines. Machine learning and deep learning are especially relevant in this respect. In this way, the machines learn how to recognize and interpret a smile or change in tone of voice, for example: Is it a happy or sad smile? Does it make the current situation better or worse than before? However, researchers are also working with some parameters such as skin temperature, and heart rate, which among other things, are practical for developing wearables that are as smart as possible.

7.1.HOW DOES EMOTIONAL ARTIFICIAL INTELLIGENCE WORK?

Through a combination of computer vision, sensors and cameras, deep learning algorithms, and artificial emotional intelligence gathering data, and then processing and comparing it against other data points that identify key emotions such as joy and fear. Once the appropriate emotion is identified, the machine interprets the emotion and what it might mean in each case.

7.2.HOW EMOTIONAL ARTIFICIAL INTELLIGENCE IS USED TODAY

As the field keeps on developing, many companies are actively using it to provide better services and products. To name a few examples:

Affectiva, an emotion recognition software company, helps advertisers and video marketers gather moment-to-moment facial expressions when watching a video with its affix for market research. This data is compared to the company's emotion database, and benchmarks for sales

lift, brand recall, and more to give its customers such as Kellogg's and CBS ideas to optimize their content and media spend.

The company is also helping the automotive industry figure out ways to use emotional artificial intelligence to transform the transportation experience, including road safety and passenger experience. This includes advanced driver state monitoring solutions to identify an impaired or tired driver as well as a system for autonomous vehicles.

Some comprehensive review examines the dynamic relationship between emotional intelligence and emotional artificial intelligence within the context of educational environments. Many authors have demonstrated how AI-powered educational platforms can analyze students' emotional states and adapt teaching methodologies accordingly. By incorporating emotionally intelligent feedback and personalized learning paths these systems can furnish individual emotional needs that will help students' academic performance and well-being. (Beatty, April 1, 2023)

7.3.THE NEW USE IS EVOLVING QUICKLY

In the past two years, emotional AI has moved into completely new areas and industries, helping organizations to create a better customer experience and unlock real cost savings. These are some of the things that we can observe and feel the difference.

- **Video gaming:** With the help of technology, we can witness a video game that detects emotions via facial expressions during the game and as well can adapt it.
- **Education:** We witness today some learning software prototypes which is developed to adapt to kids' emotions.
- **Employee safety:** Today in various organizations emotion AI can help to analyze the stress and anxiety levels of employees who have very demanding jobs such as first responders.
- **Recruiting:** Software is used during job interviews to understand the credibility of candidates.
- **Fraud detection:** Insurance companies use voice analysis to detect whether a customer is telling the truth when submitting the claim.

Table 1: Applications of Emotional Intelligence in Artificial Intelligence (AI)

| Application | Description |
|------------------------------|---|
| Emotional Recognition | AI systems equipped with emotional recognition can identify human emotions, |
| | Enabling personalized interactions and responses. |
| Sentiment Analysis | AI can analyze sentiment in text and speech, helping businesses gauge |
| | Customer feedback and emotional responses. |
| AI in Education | Emotionally intelligent AI in education can adapt teaching methods based on |
| | Students' emotional states, enhancing learning experiences. |
| AI in Healthcare | EAI-driven applications can improve patient care by understanding emotions |
| | And enhancing medical decision-making. |

However, barriers to adoption remain. A new Gartner customer study uncovered that there are as yet significant trust issues around feeling AI innovations; that is, clients feel less comfortable with feeling AI using camera capture composed of voice analysis.

Providers need to convince users that emotions are safeguarded and only used in an anonymized way to train other systems by implementing transport data management policies.

8. CONCLUSION

Artificial intelligence and technology are one side of life that always interest and surprises us with new idea, topics, innovations, products, etc. This study contributes to understanding artificial intelligence and some of the areas in which AI is contributing and also to knowing the potential and satisfying its expectation with the help of technology. Emotional Intelligence has gathered significant responsiveness from all fields of business, emotional intelligence has appeared we are so connected with the devices but in reality, people are becoming lonelier. Every single person has the responsibility to find a way to slow down and find a way of understanding the self and reflecting on how they behave and how they feel about themselves. We have responsibility for how others feel and how others react. Emotional artificial intelligence is now becoming quite extensive across industries. A system that can detect both facial expressions, as well as vocal cues human, is being employed to detect and handle emotional input in various sectors like customer service, training, health care, and financial interactions as well as education. Emotion AI is the center point of this emerging technology.

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