Topic: Knowledge

How Emotion AI will change the online learning landscape

Vishal Soni

With the development of technology, it has become evident that understanding of both the cognitive and affective channels of human connection is crucial. Emotion recognition is a branch of affective computing that seeks to do this. Understanding someone's feelings requires being able to recognize, sort through, and interpret verbal and nonverbal cues.

Emotions are intangible by their fundamental nature, but not in the way we express them. We are all conditioned to look for and interpret both verbal and nonverbal cues; now, we just do it unconsciously. The way someone looks, gestures, speaks, and uses their voice are just a few of the many cues that reveal how they are feeling. The capacity to precisely identify human emotions is currently considered a niche application.

With the upcoming mainstream adoption of emotional AI, tech giants and startups across a variety of industries—including automotive, retail, edtech—have invested in making their technology more human using computer vision and speech recognition. Moreover, Gartner predicts that 10% of individual gadgets will have emotional AI capabilities in two years. According to projections, the worldwide market for emotional AI will increase at a compound annual growth rate (CAGR) of 11.3% from US$19.5 billion in 2020 to US$37.1 billion by 2026. The global adoption of IoT, AI, ML, and deep learning technologies, rising demand in the Automotive AI sector, rising demand for high operational excellence, and rising need for socially intelligent artificial agents are some of the key factors propelling the market's growth.

A key asset, emotional AI can provide new metrics to understand people and reinvent products and services in the future. With this, emotion AI has caught the attention of ed-tech learning platforms all around the world. The ed-tech sector in India, which was valued at $265 million in 2019 but is expected to expand to $1.7 billion by 2022 (a six-fold increase), is increasingly using emotion AI on domestic platforms.

Emotion AI has the potential to transform online learning in several ways.

By understanding the emotions of learners, educators can better cater to their needs and provide them with material that is more likely to hold their attention and interest. Due to communication issues, the current online style of education delivery has left professors and students unable to provide the desired results. In place of the abundance of feedback that in-person learning offered and strengthened the interaction between professors and students, ambiguity has now taken its place. This is a situation where emotion AI will really help the educational system. The physical interaction between students and professors can be successfully replaced by the capacity to

gather and analyze student reaction data. There is also plenty of room to create a curriculum that uses the same technologies to enhance the learning process.

Moreover, by monitoring the emotions of learners as they interact with course material, educators can get a better idea of how well they are comprehending and retaining information. This feedback can then be used to adjust the course accordingly. Emotion AI can significantly improve instructors' capacity to recognize, quantify, and react to a range of student learning behaviors. The collected data can also give teachers insightful feedback and encourage responses to change their pedagogical approaches. It can assist in determining the learner's level of concentration and identifying the section of the subject that the student finds challenging to comprehend.

Second, by using speech recognition, we can detect stress signs in student voice data, alerting teachers to repeat or clarify instructions. Teachers are aware with these subtleties in a traditional classroom setting, and when everything transitions to the virtual medium, emotion AI can assist increase the effectiveness of the long-distance instruction.

With the use of technology like eye-tracking, face coding, and emotion AI UX testing methodologies, instructors may change their content to maximize the learning of their students. Teachers may learn more about each student's emotional intelligence, cognitive talents, and behavioral skills with the use of AI-driven emotion analytics and algorithms. The use of technology to track and analyze students' learning habits can assist tailor the curriculum.

For a while now, the educational paradigms have been out of date, and Covid-19 has helped people realize this. Demand is growing for digital learning environments that are intelligent, online teaching tools, and remote learning platforms. In a post-Covid-19 world, thinkers, decision-makers, and educators may create significant, long-lasting change by integrating Emotion AI into their platforms. A cutting-edge idea, emotion AI in education is a powerful learning method that can be specifically tailored to each learner.

The potential of emotion AI is far-reaching and its applications are only beginning to be explored. Emotion AI has the potential to transform the online learning landscape by providing a more personalized and engaging experience for learners. While the technology is still in its early stages, there is great potential for it to improve the online learning experience for both students and educators.

In the future, emotion AI is likely to play an increasingly important role in the online learning landscape. As the technology continues to develop, it will become more sophisticated and widespread, transforming the way that we learn.

Exercise 1

Answer the following questions correctly!

1. What is an `emotion recognition`?
2. What entities that share the common interest of the upcoming mainstream adoption of emotional A.I.?
3. Mention at least two of Gartner's predictions and/or projections related to emotional A.I?
4. Why do some people consider emotional A.I as a key asset?
5. Where are the educators` positions related to emotional A.I.?
6. What are the advantages for instructors in using technology like eye-tracking, face coding, and emotion AI UX testing methodologies?
7. Does Covid-19 help educators or instructors to improve the educational paradigms?
8. What happens in a post-Covid-19 world for thinkers, decision-makers, and educators related to A.I. as a whole?
9. How big is the potential of emotion A.I. for the human race?
10. Does emotion A.I. play an increasingly important role in the future?

Exercise 2

1. In your opinion, what would you do, as common people, when adoption of emotional A.I. becomes commonwide?
2. What are the most common challenges of emotional A.I. worldwide?
3. Arrange several points that you mention on the first question and second one on a simple manuscript!
4. Present your manuscript in front of a small group or class then discuss it!

Noun, Verb, and Adjective

A noun is a word that is used for identifying people, places, objects, events, happenings, etc. A verb is a word used for expressing any action in a sentence. An adjective performs the function of qualifying a noun.

Nouns are one of the elementary rules of English grammar. These words are nothing but the names that we use generally. The names of people, objects, places, events, etc. are called as nouns in terms of grammar. Nouns are chiefly of two types: Common and Proper. Common nouns are more or less the names which we use in our daily life. Proper nouns can be the names of persons, historic sites, religions, religious texts, etc.

Verbs are often the most important part of a sentence. These are the action words in a phrase, clause or a sentence. Any word which is used to describe any action in a sentence can be classified as a verb. Almost every sentence in the English language contains at least one verb in it.

An adjective is a word that is used to describe the quality of a noun. Many times, it is required that a noun be further defined in the sentence that it appears in. In such a case, an adjective is the best possible word which can be used to do so. Using an adjective will give leverage to the noun and lend context to the sentence as well.

Knowing about a noun, a verb and an adjective can be much easier, by learning about their usage in a sentence.

For example:

Dave is a brilliant student.

Exercise 3
Fill in the blanks as the example below. Use your dictionary where necessary!

Example: Noun   Verb   Adjective
          manager   manage   management/managable

Noun	Verb	Adjective
1. Communicator	....	....
2. Condenser	....	....
3. Conductor	....	....
4. Decorator	....	....
5. Defector	....	....
6. Defender	....	....
7. Demonstrator	....	....
8. Director	....	....
9. Editor	....	....
10. Employer	....	....
11. Executor	....	....
12. Orator	....	....
13. Proclamator	....	....
14. Proctor	....	....
15. Prosecutor	....	....
16. Provocator	....	....
17. Publisher	....	....
18. Reporter	....	....
19. Senator	....	....
20. Spectator	....	....

Antonyms
An antonym is a word that has the opposite meaning of another word. An antonym does not have to be an exact opposite of the original word, as long as it expresses a generally opposite idea.

Typically, antonyms come in pairs of two words that have opposite meanings. Some examples of pairs of antonyms include:

hot and cold
near and far
tall and short
quiet and noisy
destroy and create
divide and unite

It is also possible for one word to have several antonyms. For example, some antonyms of unite are:

divide
break
partition
segregate
split
subdivide

Examples of Antonyms in a Sentence
We can use antonyms in a sentence to express two contrasting ideas. For example:

Although it was hot outside, the temperature inside of my apartment was cold from running the air conditioner all day.
The coffee shop is too noisy; I prefer to study in a quiet place.
In its early history, the 4th of July holiday divided Americans because of differences in political parties; now, the holiday unites Americans in pride for their country.

Antonyms are believed to have been first used in 1857.

The English term "antonym" is borrowed from the French term antonyme which is borrowed from the Greek term antonymía. This term is a combination of the Greek root words "anti-", which means " opposite", and "-onym", which means "name". The word "antonym" was first used

in English by Charles John Smith, a British clergyman and author of the book Synonyms and Antonyms, Collected and Contrasted.

Exercise 4
Find the antonyms of the following words in the text.

1. Employer   6. Effects
2. Competitor   7. Valuable
3. Give   8. Dissatisfaction
4. Outputs   9. Whole
5. Possible   10. Ineffective