Social Emotional Learning and AI

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Learning AI Social Emotional Learning

Learning Objectives

After reading this chapter, you will gain a better understanding of:

1. Social-Emotional Learning (SEL) and Artificial Intelligence (AI) in education and main components of SEL.

2. The role of AI in addressing Socio-emotional aspect of teaching and learning

3. Potential benefits and challenges associated with integrating AI into education

4. How AI contributes to personal growth, emotional intelligence, and overall well-being

5. The future role of AI in promoting social and emotional learning in educational environment

this chapter discusse what is SEL and AI, how postitively change students' academic performance and student's emotional well-being. In addation, how AI-tools may support SEL, and more generally how AI can positively or negatively impact mental health of students.

Social Emotional Learning and AI (generated with pixle Image Creator)

Introduction

The integration of Social-Emotional Learning (SEL) with Artificial Intelligence (AI) in contemporary education stands as a beacon of innovation, holding the promise of transformative experiences for both educators and learners. Throughout this semester in a strong school course, we delved into the infusion of AI into education, exploring various AI tools that enhance and shape students' learning experiences, as well as examining their impact on academic achievement. My curiosity was piqued by the adaptation of these new technologies to social-emotional learning within educational sectors. In traditional classrooms, teachers and students share direct interactions, allowing educators to discern students' emotions, particularly when they struggle to understand or feel confused about a certain topic. The question arises: how do AI tools replicate this ability to recognize and respond to students' emotions and feelings?

During these two decades, the intersection of these two fields brought evolution into educational frameworks. The nation of a classroom, where individuals not only engage but also receive personalized instruction aligned with their unique needs, receives immediate feedback. AI technology has become a certain fact that is changing the landscape of education. The topic of artificial intelligence, which has gained remarkable attention lately, is now an essential part of academic discourse. Specifically, the intersection of AI and SEL emerges as focal points and holds the potential to revolutionize the educational system. Which transforms the classroom into a dynamic environment that fosters both students' academic achievement and well-being.

As technology grows rapidly, we are where AI tools, specifically sophisticated language models like chat GPT, GPT-3.5, and GPT-4, redefine the boundaries of education possibilities. The capacity of these language models is to process and generate human-like text, opening avenues for innovative approaches to education, particularly social-emotional learning.

Social Emotional Learning

Social-emotional learning (SEL) is an educational concept that assists students of all ages to better understand and manage their emotions and feelings (Brackett & Rivers, 2014). These learned skills or behaviors help students to be positive, understand and communicate with others effectively, and make responsible decisions (Husaj, 2016). Just thinking that being in an environment for the first time and meeting strange people is not simple at all. Some people in this kind of situation are under pressure and unable to manage their feelings, so they need help controlling their emotions and feelings. This help can come from parents, schools, or colleges. Always take schools as a responsibility that goes beyond teaching math, English, and other school subjects (Husaj, 2016). Schools have historically taught students' everyday life skills, especially in the United States, since the early 1990s, and SEL has emerged as an important topic in American education (Hoffman, 2009). Overall, SEL is an approach to helping students identify, control, and express their social and emotional parts of their lives successfully and operate their daily responsibilities (Casel, 2005).

SEL programs are tried to developing five fundamental of social and emotional competencies

According to the Collaborative for Academic, Social, and Emotional Learning (CASEL), an organization that closely works to support educators and students for positive outcomes in Prek−12, it is believed that SEL is part of five fundamental competencies that can be used in the everyday life of an individual, whether at home, in the classroom, or in other social settings (Husaj, 2016).

1. Self – Awareness

Sometimes self-awareness is explained as the most important skill in social-emotional learning. Collaborative for Academic, Social, and Emotional Learning (CASEL) defines it as the ability to "understand one's own emotions, thoughts, and values and how they influence behavior across contexts' '. Students' ability to understand and identify their emotions and feelings, develop their self-perception, which matches reality, believe in themselves and their own capacity, and identify their strengths and weaknesses are associated with self-awareness. In addition, students developing self-awareness should consider their preconceptions and biases and create a growth mindset that promotes their personal growth (Hinterstoisser, 2011).

2. Self- Management

The CASEL framework defines self-management as the ability to "manage one's emotions, thoughts, and behaviors effectively in different situations" to accomplish their personal goals and objectives. Another overview of education goes deeper into this concept and explains it as a process through which students are able to develop their thoughts, behaviors, and emotions that help them make informed decisions. Setting goals, paying attention, managing and controlling their emotions, and using constructive feedback to make personal progress are some basic skills related to self-management.

3. Social Awareness

It is about becoming more aware of other people and feeling and understanding them. Comprehending other points of view and appreciating and respecting different people from different backgrounds and cultures are all involved in social awareness.

4. Relationship skills

It is the fourth primary skill that has been broadly defined as the capacity to establish and maintain positive relationships with other people and the acquisition of the ability to communicate efficiently. One part of developing relationship skills is learning how to work with other people while achieving shared goals. In addition, conflict resolution, problem-solving ability, and working in groups are part of relationship skills. This skill not only means to develop skills to achieve shared goals but also means to boost a sense of social justice and stand for the needs and rights of other people (Positive Action, 2023).

5. Responsible Decision-making

This is the last area that involves social-emotional learning. This skill is defined as the ability to make ethical, safe, caring, and constructive decisions while being aware of the consequences of one's own actions or possible results from

different choices. According to positive action (2023), the decision can have social, emotional, physical, and cognitive consequences.

Overall, I realized and understood that social and emotional learning is one of the most essential parts of education because it helps students develop and manage their feelings and emotions (Collie, Martin, & Frydenberg, 2017). In developed countries like the United States, SEL has a significant place in the education sector and is integrated into school curricula, but developing countries often overlook the importance of SEL in education. Personally, I have experience studying in Iran, Afghanistan, and China. I have not had any course or any workshop training related to social-emotional learning and have never had the opportunity to learn how to control and manage my feelings and emotions. Still, I have challenges managing my emotions and communicating effectively.

Expert Corner

I had the privilege of interviewing Sawdah Rubai Bente, a dedicated Master's program student at Asian University for Women, whose research focus revolves around the intersection of social-emotional learning (SEL) and artificial intelligence (AI). The interview took place on December 18, 2023, shedding light on Sawdah's thesis topic and her insightful perspectives on the dynamic relationship between artificial intelligence technology and social-emotional learning.

Inscription of Audio

So that first of all thank you so much for accepting with this interview. I'm going to 1st question.

Could you please explain the significance of Social emotional learning within education framework? What's your opinion on about this?

OK, so. For the significance of social emotional learning, like within the educational framework as you're asking. Is like very important. It as I'm like working on my thesis about social emotional learning and working with school that are implementing social machine learning preschools mainly. I think. For the holistic development of any students and just young children in general, social emotional learning is very, very important. And if you don't include social emotional learning into the curriculum of the. Schools, especially in primary schools and high schools it will be, at least in my opinion, the curriculum stays incomplete because without childhood like development, without the proper Development of students mental well- being, you cannot really teach them to their fullest potential. So to make sure that your kids are learning in a better environment to have a holistic development of their physical and mental well-being, it's very important because social emotional learning targets. The core 5 components the self-awareness, social awareness and. Emotional intelligence. It's boosting emotional intelligence of young kids and students, right. It's making sure that they are aware of their emotions and they know how to navigate through it. They know how to build social relationship with other kids and they know, you know, they can have a healthy, stable mind so that they can, you know, take in whatever else that we're trying to teach them academically. So if a student is not mentally. And emotionally safe and they don't. They're not stable with their emotional. State they cannot learn properly. It's going to even affect their cognitive ability to, you know,

absorb everything they're learning in the classroom. So to have a proper development of the students, to improve their academic performance, to reduce their behavioral issue and make sure they are reaching their full potential, social emotional learning is very, very important. And I think it should be included in every school, everywhere.

OK, for this questions we're when we're talking about AI, I'm in no way any expert on AI, but if I'm talking about social emotional learning, I don't think that. It's artificial intelligence and SEL has that much. Relation. Or at least it shouldn't have, because AI is still an underdeveloped. Yes, field, right. Yeah, especially social emotional learning, it concerns children's and not just children's, any person's emotional well-being and AI is not equipped to handle or assess even any individual social emotional learning or to assess their development or even, you know, understand and correctly. Analyze the result of all the SEL components. So I don't think artificial intelligence should be involved in SEL curriculum development or to like do analysis in SEL or anything else. Like I think the field of SCL should be handled by teachers and educators and you know, experts, human experts, basically. They should not be handled by any AI. You can use AI as a tool. It can be a tool to you know, run an algorithm or like you know leverage your data to make sure to just you know help you with all the boring stuff. Like you want to read the articles and it you just input your keywords and they it helps you. You know quickly search through it and you know presents you all the relevant information in that particular article and like you know, research work and you know menial data. Framing those can be done with AI, but to actually implement it. To actually working with social emotional learning and to know how kids are behaving and how to assist them, how to, you know, analyze their behaviors and how to, you know, assess which kind of support that they need. I don't think AI should have any relation in that context or should be used for that purpose anyway. OK, so the you know already you had a very deep research and study related to this topic.

What specific social emotional skill are crucial for a student in their education journey?

there's like 5 main components and I don't think there's anything that's particular. That's more importantly than the other. I think all five of them has a very important role to play within social emotional learning context. And each of them is connecting with each other and helping to build an overall social like emotional, mental. Well-being and you know, it's fostering kids and students, you know. Yes, Mental cognitive, it it's giving them, OK. So it's basically it's giving them a cognitive support like mental

support, right. It's giving them, it's teaching them how to, you know, regulate their emotions and it's reducing their behavioural issue. It's making them understand themselves and other students. You know, it's helping with equity and, you know, inclusivity inside the classroom. So all the five components of ACL in my opinion is very important. Whether it's it is self-awareness, self regulation, social awareness, relationship skills and the last one what was it responsible decision making. It hink all five of them are equally important and even without one you will have a gap in students learning. Social five are equally important to you know, give you a holistic like a very well developed curriculum that can help students actually you know learn and you know navigate throught heir academic journey or it's not just about academics, it's about. Your development as a human being as well, so it's very important. So that do you believe AI has the capability to adapt and other social emotional aspects of teaching? Uh, teaching particularly or UH, with social emotional learning? No just address, it's able to address the social emotional aspect of teaching. To address so the aspect of social. So can you repeat your question? Yes, I'm not sure what's your opinion or what's your idea. It's mean.

Do you believe AI has the capability to adapt and address social emotional aspect of teaching?

OK.I would believe no AI should. I don't think AI has the capability to adapt or to address social emotional aspect of teaching because AI itself is a very underdeveloped tool and for even if it was really developed, highly developed tool to assess you know social, emotional aspects. Of teaching or whatever. You cannot. It's not, you cannot replace it with a human being, especially in terms of, you know, assessing and you the addressing social emotional aspect of you know how you teach students.

Because especially for social emotional learning, students come from diverse background and they have each of their needs are different, they come, they're coming from different contexts, different families, different home, different nationalities, ethnicities. There's every individual has their own need and to, you know, assess them and to, you know, build that connection with them to actually. Make sure that they will. They're willing to open up to you and to make sure that you are going to be able to support them in in the specific way that they need. I That's a human beings job. AI cannot, you know. Create any teaching methods or any? Algorithm. It's not replaceable with AI. It has to be a teacher. It has to be a person accessing it and you know, helping. Developing techniques and helping. And building ways to connect with the students and to, you know, teach them. It's mean AI just able to support, for example, the teacher or the learning learning process for students. Yeah, yeah. So AI can be just

used as a tool, as a software where you have a lot of resources availab leand if you want to sift through all your information and data,it can make your work faster, but it cannot

do the work for you. You are you will bethe one who have to do the work. Because it's about human connection and you cannot replace it with a machine. You with human connection and human stability to develop your cognitive mind, and especially not just that. For to regulate your own emotions and to teach another person to regulate their emotion, to recognize their emotions and to build relationships and how to navigate through those relationship. Those things can only be taught by at eacher and to assess any student's state of mind, state of social and emotional well-being. It can be done by teachers. After a teacher can collect the data, AI can support the teacher to siftthrough the data and you know. It can make the process of, youknow, data analysis maybe a little biteasier, less time consuming, but it cannot replace the role of a teacher or it cannot, you know, come up with techniques. OK, thank you.

  And the next question is what are the potential benefits or risk or challenges associated with implementing AI in CEL? is the benefit and challenges?

So the benefit I would say as I mentioned already it can AI can handle help support your work to setting to data and making your work less time consuming and you know it can help support you as a tool, as a software it can you know you can use AI tools to you know make your workload a little less but. Actual teaching in the classroom that has to be done by teachers. But after you're done with the classroom, you have your data you you have your information from. Assisting the students when you need to go back and sift through all your data and make. You know, proper analysis in that time. AI can be tools, can have a supporting role to, you know, make your work less time consuming. OK,

the last question. What's your perspective about the future rule of AI in promoting social and emotional learning in educational environment?

 Future role of AII don't know AI can be maybe if we are developing it well enough, we can have virtual simulations. Of things, but I don't know how that those will be helpful for, you know, primary students. Maybe it can be helpful for you know more severe cases where you maybe if you're treat ingcertain behavioural condition like phobias or something, you can use AI tools to have you know. Virtual simulation and make that specific individual go through those simulation. It can have a you know impact in the in those cases if you can develop AI tools to have that kind of highly efficient you know programs that is which is I don't know it's we don't we don't have

them yet but maybe in the future we can have and it can help with those kind of things.

In more deeper higher level but for initial childhood development and to have ACL. Taught in school incurriculum, especially for young kids. I don't see any. Very big contribution for him for AI, but for special cases. It can have. You know, benefits like as I mentioned, maybe like I'm imagining, maybe there's like, you know, virtual simulation like nowadays everyone's like doing. A lot of virtual games, and we are, we are is like a very big popularthing, right. So maybe AI can help make VR more virtual reality to that is more, you know effective and it maybe some people can we can develop. Combine those two and develop some kind of tools that helps. People with phobias or any other severe conditions, mental or emotional. Barriers or challenges that they face and maybe it can help them through that like you know, treatment for at reatment methods, but those kind of, you know, it's going into the field of psychology and you know, abnormal behaviors and you know abnormal psychology and those stuff. So for that it can help. But for initial social material learning in the educational context, in the primary school and school, yeah, I don't see anything. Thank you so much for your time.

You're welcome.

Artifical intellignec (AI)

Artificial intelligence (AI) is an evaluation of a computer-based system that is able to perform complicated tasks better than humans and is able to mimic human intelligence (Burns, Laskowski, & Tucci, 2021). Many people have different ideas about AI technologies; some people think and confuse such technologies as leading to destruction or salvation! However, in the 21st century, with highly tech-driven technologies, AI tools are revolutionizing the world. Many industries and fields were revolutionized by the influence of AI, like transportation, health care, fashion, business, weaponry, medicine, and especially the education sector (Dwivedi et al., 2021). Artificial intelligence (AI) is a powerful and wide-ranging technology that helps people integrate the data, analyze, and use all information to improve decision-making and make human life better and easier, like Sire, self-driving cars, and machine learning systems. The integration of AI tools into human life significantly changes how people live, work, communicate, and learn. Combining AI into education and learning is a life-changing innovation in the education sector that changed the traditional learning approach (Renz, Krishnaraja, & Gronau, 2020) by introducing advanced analytical services, error correction, immediate feedback service systems, and other educational tools that help students learn effectively and efficiently. Raising open AI technology in education has many benefits for students by providing personalized learning and generating information and data

based on their needs. Teaching through AI also enhances teaching effectiveness by helping students better understand, solve problems, and measure student learning progress. Allowing students to become more productive and active in learning procedures. AI is able to make content faster and answer sophisticated questions in a few seconds just with a single click.

AI and the Social-Emotional Aspects of Teaching and Learning

When teachers can better understand the emotional well-being of individuals they are able to offer effective guidance.

[Watch on YouTube](#)

Can AI adapt to socio-emotional aspects of teaching, such as building rapport and addressing emotional needs of students?

Emotion and feeling hold important roles within social context, specifically when people interact with one another, both verbally and non-verbally (Nkambou, 2006). Usually people convey their feelings in different ways like facial expression, gestures, and with talk. These feelings have an effect on people's decision-making and how they interact with each other. When it comes to learning, communication among teachers and students is crucial to transfer the knowledge effectively. In addition, cognitive skills, and emotions also play a significant role in the classroom. Teachers observing students understand interest, excitement, or confusion of students during teaching and it helps teachers to use proper teaching methods and approaches and totally influence how they teach more effectively. A system called AITS (Affective tutoring system) has been developed. This technology and tools are able to detect and understand the emotion and feeling of students during the learning procedure. Also this method adapts teaching methods and content based on both emotional and cognitive data, improving how students learn and interact with the martials (Nkambou, 2006).

According to k, k, LJ. (2016), it highlights the social-emotional aspect of teaching and learning and how it is important in the relationship between teachers and students. It has a significant effect on the learning experience of students. This connection is not only about transferring knowledge, but also it is about understanding emotions and feelings to provide a positive and constructive learning environment for students.Nowadays, AI is a hot and trending topic in the education sector and acts as a helpful assistant tool. Artificial intelligence is able to create supportive and friendly environments for students by recognizing and trucking students' feelings and emotions. AI tools by tracking and noticing some patterns are able to recognize the student feel and provide extra help and resources for students exactly like teachers when observing students in the classroom, AI by noticing pattern help and support students in learning journey(K.K. Lj., 2016). Still in the education system, the need for instructional design to consider students' socio-emotional development is needed and AI could be able address this matter in education. However , there is more study needed in this area(Jarvelä et al., 2000).

How AI can contribute to personal growth, emotional intelligent and overall well-being

Quality of a human teacher is unique, like critical thinking and emotional connection with students. Currently, AI systems can not entirely take the place of humans in the classroom. Becuase the ability to understand something immediately, human interaction and ability to comprehend complex issues is irreplaceable in teaching , while AI has its own advantages it can not replace humans in teaching (Oritsegbemi, 2023). Teachers are capable of complex critical thinking. They are able to adjust their strategy and technique to fit the needs of the class and according to the situation. Furthermore, they are able to navigate complex topics and tricky questions, and creatively solve problems and challenges. However, Artificial intelligence provides valuable support and assistance that can not be matched with human capabilities.

Furthermore, human teachers are able to build strong emotional connections with their students and demonstrate empathy, individualized support, understanding, and flexible and adaptive learning experiences. Also, besides teaching, teachers provide mentorship, assistance , guidance, and expressing sympathy(Oritsegbemi, 2023).While AI tools do not truly understand emotion and feeling like human beings, because these tools should process the data, information and follow specific instructions that they have not personal experience and feelings. AI by analyzing and recognizing patterns and response based and what it has been programmed to react and respond. On the other hand, Malik(2018) and Kshirsagar (2022) highlight the positive role of Artificial intelligence (AI) in the education system. They claim that AI is able to contribute to the learning experience positively to the learning experience of students in schools and universities. Based on their point of view, AI tools enhance different aspects of education such as self-reflection, creative thinking, and overall learning efficiency (Malik, Tayal, & Vij, 2018; Kshirsagar et al., 2022).

"*Self-reflection*: Artificial intelligence as a tool able to help students in reflection on their learning process by personalized feedback and data analysis. AI tools are able to recognize the strengths and weaknesses of students that need improvement, fostering a greater sense of self-awareness among students."

"*Creative thinking*: Artificial intelligence helps students in fostering creative thinking. AI technologies are able to introduce innovative ideas and learning methods as well as adaptive strategies,and encourage learners to explore and develop their sense of creativity in themself. Another positive role of AI is that it is able to tailor educational content to individuals according to students' need to provide a dynamic and creative learning environment."

*"**Learning efficiency**: another positive point of AI is it has potential to enhance overall learning efficiency, by providing personalized learning experiences, real-time feedback, adaptive assessment. This adaptability ensures that each student can progress at their own pace, addressing their unique learning style."*

Impact of AI on students mental well-being
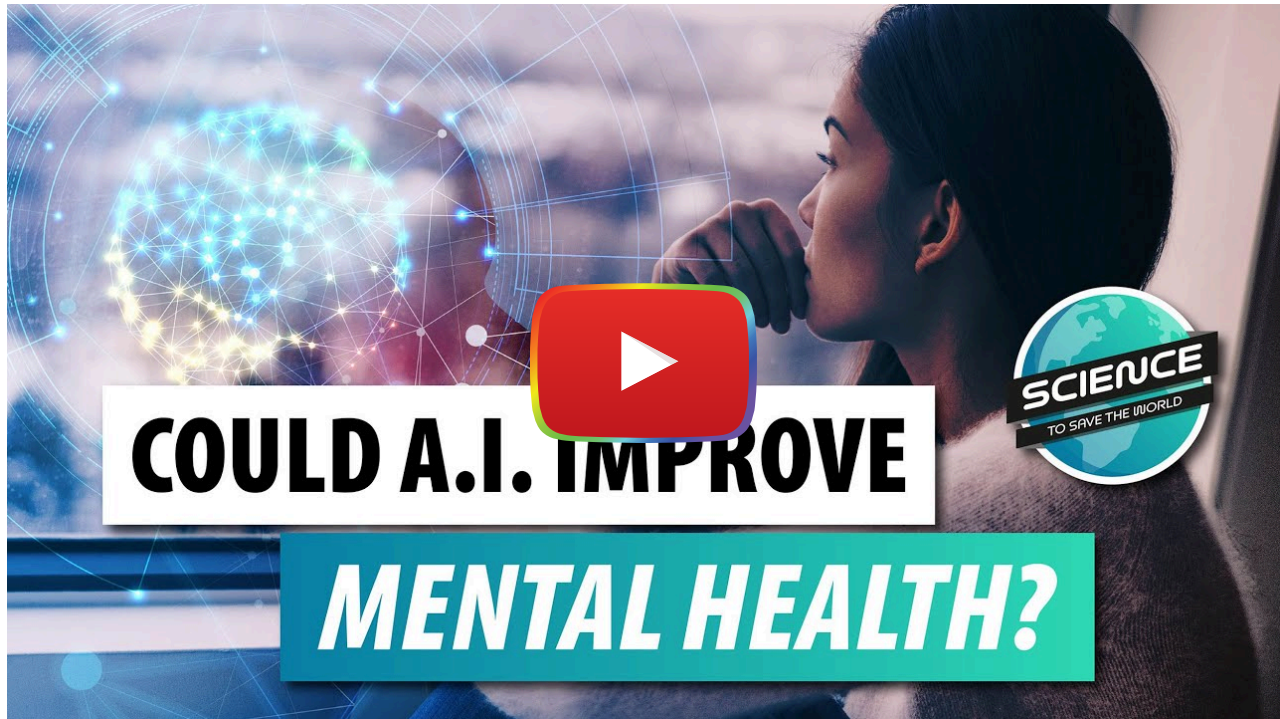
Potential benefits of using AI

Artificial intelligence has the potential to increase care quality, improve access to care, and offer personalized treatment (Verma, Jain, & Yadav, 2023). AI tools are able to support those who suffer from mental health problems by offering individual and virtual assistants that can help and support them. Or consider that every person has a different experience with a mental disorder. This advanced technology is able to analyze vast amounts of information and patterns to understand what treatment is more suitable and works best for each individual. It is like having a personalized guide that offers personalized exercises and suggests coping mechanisms for each person. This level of customization can greatly improve the effectiveness of treatment. In the education sector, especially university students can benefit from the use of AI tools such as "controversial agents" and "social robots" to manage their social anxiety and stress due to workload assignments, exam pressure, and so on. Students are able to chat and easily communicate with these AI tools when they feel worried or stressed. Intelligent agents help students better control their feelings and emotions and have better performance in social settings by offering support and direction. (Rasouli, Ghafurian, & Dautenhahn, 2022). College students might experience mental health issues when they engage in different activities and social interactions that lead to anxiety and tension, which may have a negative impact on their academic performance and their social lives.

According to Dekker et al. (2020), almost every student during their studies experiences health issues like stress, depression, and anxiety. Also, many students who enroll in higher education leave without earning their degree. All these issues could be because they came to a new environment while they were trying to adjust themselves to tertiary education. Unfortunately, the university is unable to support all students and their personal needs and mental health problems who enroll in the university. To solve this problem and prevent mental health problems like depression and anxiety, universities using artificial intelligence (AI) are able to address these problems (Dekker et al., 2020).

1."Chatbot Therapy: Think of a talking computer program that helps students deal with their stress or worries. It's like having a helpful conversation, but with a smart computer instead of a person. This idea has shown promise in supporting students' mental health."

2."Life-Crafting: This is like a writing exercise where students jot down their passions, values, and goals. It helps them focus and do better academically. The best part? It's not labeled as "therapy," so more students might give it a try."

Risk of using AI on education

Privacy	Compromising students' privacy by exploitation of data via face recognition and recommender system.
Bias and discrimination	Perpetuating gender and racial biases and social discrimination via automated scoring system.
Surveillance	Monitoring student activates via personalized learning systems and SNSs.
Autonomy	Jeopardizing students' autonomy and agency to govern their life via predicative system.

Potential ethical and societal risks of AI applications in education

The future of education with AI and SEL

Discover the future of learning: AI embracing emotions to support students | pixlr-image-generator

These days the majority of people across the world are using AI-based technology in many different sectors and fields. Nevertheless, the advanced high-tech systems of AI lack the element of emotion and capability to analyze the data and information like human beings. Furthermore, integration of SEL principle into artificial intelligence development has significant potential to revolutionize education and these future advancements are able to create more emphatic and responsive educational tools, fostering holistic development by addressing both academic and emotional aspects of learning.

Future prospects and challenges of AI in the context of social emotional learning

The future role of artificial intelligence in boosting and developing social-emotional learning is quite a complex topic, especially in the education sector (Schiff, 2020). Particularly nowadays, there is a lot of doubt about the advantages and disadvantages of AI in the education sector, while it is a trending topic in education. In my opinion, AI tools are able to help and support education by better understanding the feelings and emotions of students. By recognizing and understanding when students feel sad, happy, or confused, AI tools are able to recognize the feeling without being told directly by tracking the data, which is able to help and assist students in special ways, like suggesting things to feel better or guiding them to manage and control their feelings in a better way. As time goes on, AI tools will develop and become more advanced in the context of social emotions. By passing the time, AI tools will be able to help students and teachers connect better emotionally and bring significant changes in this field in the near future by making lessons

more personalized, adapting to how each student comprehends, and also supporting students to manage their emotions and develop their social skills. Overall, AI will get more involved, and it might have new challenges in finding new ways to help students without losing the human interaction that makes education more effective and special. How AI technology integrates with education and supports and develops social-emotional learning is full of possibilities and challenges.

Daniel Schiff (2020) discussed the potential of AI that can enhance teaching and learning, with AIEd's system having the ability to imitate teachers behavior, even promote socio-emotional engagement, and provide robust student differentiation (Schiff, 2020). For example, AI tools are able to teach students in different ways according to their needs and their learning abilities, exactly like a real teacher explaining a difficult and complex concept in an easy and simple way and guiding them through lessons. Furthermore, AI tools are able to understand and distinguish each student's different learning styles, so they can create personalized lessons for each student based on how they learn best. Furthermore, besides teaching facts and schools, the subject is able to support students' feelings and emotions, making the learning experience more engaging and supportive.

Chan (2023) also explores the potential challenges of artificial intelligence in higher education, while some groups have a positive idea about AI and may eventually replace teachers. On the other hand, the majority argued that human teachers possess unique qualities like critical thinking, creativity, and emotions and that these characteristics make them irreplaceable (Chan & Tsi, 2023). In addition, he emphasizes the importance of teacher-human interaction, which AI technologies cannot currently replicate (Chan & Tsi, 2023). It's crucial for teachers to effectively integrate with AI tools to enhance teaching and learning. Therefore, teachers need to understand how AI can work well. The future of education lies in the integration and cooperation between human educators and AI tools by understanding and refining their unique qualities. Teachers, students, and universities can effectively navigate the integration of AI, ensuring a smooth and impactful learning experience.

There is concern about the use of emotional AI in education because educational technology (Ed Tech) companies are trying to use this technology in their industry. McStay (2020) focuses on facial coding and emotional AI, which uses computer vision and algorithms to see, recognize categories, and learn more about facial expressions of emotion. McStay points out that concern about the use of emotional AI in education has been raised (McStay, 2020). He emphasizes the need for careful consideration of the ethical and legal implications. On the other hand, Ahmad (2021) is more optimistic, highlights the importance of accepting AI technology in education, and believes that AI is able to address modern challenges and boost learning. AI could be a big help in education, particularly in developing social and emotional learning, but its implementation should be carefully considered as an ethical issue.

AIEd Technologies | Proven and potential Benefits for Teaching and Learning

Conclusion

Summary of key points

The integration of artificial intelligence (AI) and social emotional learning (SEL) at the same time offers a challenging and promising future in education. Social-emotional learning is a key component in the development of a well-rounded individual, which includes self-management, self-awareness, social awareness, responsible decision-making, and relationship skills. In addition, the incorporation of artificial intelligence into educational practices brings innovative tools that not only impact academic learning but also revolutionize the socio-emotional aspects of teaching and learning. Undoubtedly, SEL is quite essential to education, particularly in these decades of rapid technological development. New technologies help education by promoting emotional intelligence and personal development. Moreover, AI-driven tools demonstrate the ability to improve and enhance SEL programs. Although AI tools cannot entirely substitute for the unique abilities that define human teachers, like critical thinking, emotional connection with students, immediate understanding, human interaction, and the ability to comprehend complex issues, AI tools are useful and valuable in the education sector because they facilitate self-reflection, stimulate creative thinking, and improve overall learning productivity. Its potential advantages also extend to mental well-being, providing individual learning and support for people who are experiencing stress and anxiety. Nevertheless, aside from the optional benefits of AI tools, some research highlights potential risks and ethnic considerations related to the integration of AI in education. Some challenges, like data security, teacher-student's roles, and the critical requirement for a moral regulatory structure to reduce educational disparities, In the future, social emotional learning and artificial intelligence will play complex and multifaceted role which need more and deep research and practical implementation to unlock the full potential of AI while navigating the challenges.

Recommended readings

1. Monterubbiano, L., & Moroni, C. (2022). AI Supported Emotions Analysis: A System to Promote Engagement in Digital Learning. *International Association for Development of the Information Society*.

"AI supported emotions analysis: a system to promote engagement in digital learning" This paper explores the possible connection between facial expressions and learner engagement while using multimedia e-learning tools like tutorials, online quizzes, and learning games.

2. Gu, R., He, Y., Luo, Y. J., Liu, C., & Zhou, Y. (2023). The potential influence of new-generation chatbots on individuals with psychiatric disorders.

"Viewpoint: The potential influence of new-generation chatbots on individuals with psychiatric disorders" in this study highlights the potential impact of new technology chatbots, like ChatGPT, on individuals with psychiatric disorders. Also, this paper discusses why people with psychiatric disorders may be more likely to "addict" to these new-generation chatbots and how they impact these people's social withdrawal tendencies.

3. Tuomi, I. (2022). Artificial intelligence, 21st century competences, and socio-emotional learning in education: More than high-risk?. *European Journal of Education*, *57*(4), 601-619.

"Artificial Intelligence, 21st Century Competencies, and Socio-Emotional Learning in Education: More than High-Risk?" During the last two decades, social-emotional competencies have gained important attention in educational policy. This paper contextualizes social and emotional skills, soft skills, and abilities in the context of technological change, machine learning, and the ethics of artificial intelligence.

Share your Insights!

KEY TERMS (GLOSSARY)

1.Emotional Intelligence: The ability to recognize, understand, manage, and effectively use one's own emotions as well as the emotions of others for improved interpersonal relationships and well-being.

2.Self-Awareness: An individual's ability to recognize and understand their own emotions, strengths, weaknesses, and values.

3.Empathy: The capacity to understand and share the feelings and perspectives of others, promoting compassion, kindness, and effective communication.

4.Social Awareness: The ability to recognize and comprehend social cues, cultural norms, and the perspectives of different individuals and groups.

5.Machine Learning: A subset of AI that focuses on training algorithms to improve their performance on a specific task by learning from data and experiences.

6.AITS(Affective tutoring system) : A system of education, especially in some colleges, in which instruction is given personally by tutors, who also act as general advisers of a small group of students in their charge.

7.Deep Learning: A subfield of machine learning that uses artificial neural networks to model and understand complex patterns and features in data.

8.Chatbot: An AI-powered software application designed to simulate conversation with human users, often used in customer service and support.

9.AI Ethics: The study and practice of addressing the ethical considerations and challenges associated with AI development and use, including issues of bias, fairness, transparency, and accountability.

10. AI Algorithm: A set of rules and instructions that AI systems follow to solve specific problems or perform tasks, such as image recognition, recommendation systems, and data analysis.

References

Brackett, M. A., & Rivers, S. E. (2014). Transforming students' lives with social and emotional learning. International handbook of emotions in education, 368.

Hoffman, D. M. (2009). Reflecting on social emotional learning: A critical perspective on trends in the United States. Review of educational research, 79(2), 533-556. (Hoffman, 2009)

Husaj, S. (2016). Social emotional learning (SEL). European Journal of Multidisciplinary Studies, 1(3), 168-171.

Casel, S. (2005). Sound: An Educational Leader's Guide to Evidence-Based Social and Emotional Learning (SEL) Programs. Illinois Edition.

Hinterstoisser, T. M. (2011). An investigation into the relationship between conscientiousness, self-awareness, and occupational stress outcomes in culinary chefs.

Positive Action. (2023). What is SEL? Social-Emotional Learning Defined & Explained. PositiveAction Logo. Retrieved from https://www.positiveaction.net/what-is-sel#sel-skills

National University. (2023). What is Social Emotional Learning (SEL): Why It Matters. https://www.nu.edu/blog/social-emotional-learning-sel-why-it-matters-for-educators/#:~:text=Broadly%20speaking%2C%20social%20and%20emotional,them%20to%20succeed%20in%20school.

Burns, E., Laskowski, N., & Tucci, L. (2021). What is artificial intelligence. Search Enterprise AI.

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., ... & Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. International Journal of Information Management, 57, 101994.

Renz, A., Krishnaraja, S., & Gronau, E. (2020). Demystification of Artificial Intelligence in Education—How much AI is really in the Educational Technology?. International Journal of Learning Analytics and Artificial Intelligence for Education (iJAI), 2(1), 14.

Nkambou, R. (2006, July). A framework for affective intelligent tutoring systems. In 2006 7th International Conference on Information Technology Based Higher Education and Training (pp. nil2-nil8). IEEE

Lj., K.K. (2016). The socio-emotional aspects of teaching and learning. Nastava i Vaspitanje, 65, 471-490

Jarvelä, S., Lehtinen, E., & Salonen, P. (2000). Socio-emotional Orientation as a Mediating Variable in the Teaching-Learning Interaction: Implications for instructional design. Scandinavian Journal of Educational Research, 44, 293 - 306.

Oritsegbemi, O. (2023). Human Intelligence versus AI: Implications for Emotional Aspects of Human Communication. Journal of Advanced Research in Social Sciences.

Malik, G., Tayal, D.K., & Vij, S. (2018). An Analysis of the Role of Artificial Intelligence in Education and Teaching. Advances in Intelligent Systems and Computing.

Kshirsagar, P.R., Jagannadham, D.B., Alqahtani, H., Noorulhasan Naveed, Q., Islam, S., Thangamani, M., & Dejene, M. (2022). Human Intelligence Analysis through Perception of AI in Teaching and Learning. Computational Intelligence and Neuroscience, 2022.

Verma, T., Jain, S., & Yadav, R.L. (2023). Impact of AI in Mental Health. International Journal of Advanced Research in Science, Communication and Technology.

Rasouli, S., Ghafurian, M., & Dautenhahn, K. (2022). Students' Views on Intelligent Agents as Assistive Tools for Dealing with Stress and Anxiety in Social Situations. Proceedings of the 10th International Conference on Human-Agent Interaction.

Dekker, I., de Jong, E.M., Schippers, M.C., de Bruijn-Smolders, M., Alexiou, A., & Giesbers, B. (2020). Optimizing Students' Mental Health and Academic Performance: AI-Enhanced Life Crafting. Frontiers in Psychology, 11.

Hussna, A., Immami Trisha, I., Jahan Ritun, I., & Rabiul Alam, M.G. (2021). COVID-19 impact on students' Mental Health: Explainable AI and Classifiers. 2021 International Conference on Decision Aid Sciences and Application (DASA), 847-851.

Bu, Q. (2022). Ethical Risks in Integrating Artificial Intelligence into Education and Potential Countermeasures. Science Insights.

Ma, X.J., & Jiang, C. (2023). On the Ethical Risks of Artificial Intelligence Applications in Education and Its Avoidance Strategies. Journal of Education, Humanities and Social Sciences.

Collie, R.J., Martin, A.J., & Frydenberg, E. (2017). Social and Emotional Learning: A Brief Overview and Issues Relevant to Australia and the Asia-Pacific.
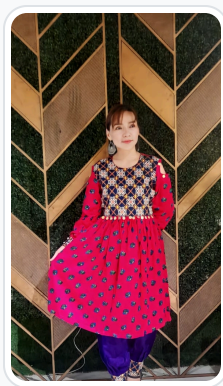
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