

ARTIFICIAL INTELLIGENCE (AI) ADOPTION AS A PART OF INTERPERSONAL SKILL DEVELOPMENT

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ABSTRACT

In this modern digital era, the education sector became popular with the usage of technology as an education tools. For this reason, educator can take this opportunity to develop student interpersonal skills. In fact, a part of computer science studies specifically known as Artificial Intelligence (AI) is capable of playing a big role to develop some of the interpersonal skills. Therefore, what is expected from this paper would be to explore some potential adoption of AI to improve or develop a part of the student interpersonal skills in education sector. In the end, we could observe some of the trend and the utilization of digital technologies which related to computer science field specifically known as AI in education sector to develop a part of the interpersonal skills.

Keywords: *Artificial Intelligence, AI, interpersonal skills, education*

INTRODUCTION

Every parents would be delighted to send their children to school later on to a higher education institution with a hope they will gain knowledge and soon upgrade their family living standard in future. As for the children to be at a better living standard once they grow up, there are a lots of value and life experience they need to gain. They need to have the strength to face the reality of life as an adult especially when they came across and live in a multiracial society.

Gaining a first class certificate or degrees in a higher education institution does not always mean that the person is already complete. As well as having a good education background, a holistic graduate should also have a set of interpersonal skills that will determine their level of life success. What is expected from this paper would be to explore some potential adoption of Artificial Intelligence (AI) in education to improve some of the student interpersonal skills.

In Malaysia, the Ministry of Higher Education of Malaysia (MOHE) has listed seven non-technical skills. There are communication skills, critical thinking and problem solving skills, ethics and morality, teamwork skills, lifelong learning skills, entrepreneur skills, and lastly the leadership skills [1]. Once a student continued their studies until they finish their college or university life, they will fight for a job and this is where interpersonal skills being valued. Based on a research conduct by [1], non-technical skills demanded by employers are including communication skills, critical thinking and problem solving skills. To support this statement, a literature review from [1]

found out that the factors of unemployment occur also because lack of communication skills, and critical thinking skills (Roslidawati 2015).

A study made by a group of researcher [7] stated that 18% of respondents agreed that interpersonal skills are "more important than technical skills", 72% agreed interpersonal skills "as important as technical skills", and only 10% agreed interpersonal skills are "important, but less than technical skills.". While from some expert understanding, it can be synthesized that interpersonal skills are a skill to recognize and respond appropriately to the feelings, attitudes and behaviours, motivations and desires of others [6].

As for Artificial Intelligence (AI), it is a branch of Computer Science (CS) studies. This is a studies about observation and learn about leaving things on how they survive day by day. With the knowledge they gain, they try to adapt the survival process into the human life by using technology. With the help of AI technologies, which simulate human intelligence to make inferences, judgments, or predictions, computer systems can provide personalized guidance, supports, or feedback to students as well as assisting teachers or policymakers in making decisions [3].

APPLICATIONS OF ARTIFICIAL INTELLIGENCE (AI) RELATED TO INTERPERSONAL SKILLS IN EDUCATION

With the collaboration ideas of AI in education, we can observe some application of AI to stimulate student interpersonal skills. AS mention earlier in this paper, there are a lots of non-technical or interpersonal skills. Therefore, this paper will undergo some of the improvement of interpersonal skills such as ethics, communication skills, and critical thinking and problem solving skills with the help of AI.

First of all, to improve ethics or attitudes, the use of AI face recognition technique has been used widely nowadays. From the literature review of [1] observed that one of the factors of unemployment also because of attitude problem (Ayub 2014). To adhere the attendance, a face recognition technique can be used in a class or in a lecture hall. All data including students picture will be store during registration process. The camera associate with the system will compare each student in the class or lecture hall with the picture stored in the registration database storage. Then the system will update the attendance status for each student. For example, a system has been proposed by [2] to adhere attendance monitoring which consist sensor modules and the information from the sensor is processed by the software module and stored in cloud. A simple explanation on how this system works is whenever a student enters the class, the camera will capture the face, extract the objects, produce 3D points from the camera video, compare with the database to find similar image from cloud server and mark their presence and absent status automatically.

In addition, this AI face recognition technique also applied in some of the schools in China for surveillance purpose where the cameras are located at the school gate. Moreover, this technique is very interesting where it is used by the educator to keep track how often their students playing with their mobile phone and also the system is able to identify how many times a student yawn [4]. The management device will then give feedback to the educators. Therefore, with the help of this AI-based face recognition system, it able for educator to educate students to be more ethical by consulting them based on the observation information by the system.

As a part of improving the communication skills, an AI speech or voice recognition technique can be used. In China, an AI supported software called "AI teacher language learning system" has been develop to learn mandarin where cartoons and other interactive feature are added to the system. Nowadays there are a lots of AI supported software on the Internet for example

VoiceTra. This software helps very well for student in school or campus to communicate with friends from different country. For example, we have a friend from Japan and does not able to speak English. Therefore, we can talk with our own language to the software and the software will translate and speak on behalf of us with Japan language. With this, a communication can be continued without having the feeling to be scare of not to be understand by others. Furthermore, this type of AI-based product is able to help students or any new language learner to learn a new language.

A group of researcher [5] has developed a virtual counselling application using AI known as Virtual Patients (VP) to assist in nursing student communication skills. The main objective is to enhance nursing students perceived self-efficacy and confidence. An initial voice chatbot was trained using a natural language processing (NLP) engine, Google Cloud Dialogflow, and was later visualized into a three-dimensional (3D) avatar form using Unity 3D. With this development, they are hoping nursing students are able to prepare themselves before they face a real life situation later.

Finally, the critical thinking and problem solving skills where the Artificial Intelligence in Education (AIED) or known as an Intelligent Tutor System is implemented. With the help from AI, an intelligent tutoring system can be developed which enables students to learn, practice, and interact with peers or teachers but also provides hints, guidance, and supports to individuals based on their status or needs [3]. One of the example is Thinkster which is focusing on mathematics subject. A student will be given a series of maths questions and then, with this system, an expert or coach will track the student solution steps to solve a particular question. On the other side of this system, the AI-based system will identify and suggest strategies for solution steps improvement.

CONCLUSION

As a conclusion, we are witnessing that the AI techniques have the ability to be a game changer in developing or improving interpersonal skills. As a literature review study has concluded that the hard skills only contribute 15% to someone's success, while soft skills or interpersonal skills factor contributes up to 85% (John, 2009) [7], therefore based on this paper findings, there are more space for research and development needed to enhance the current AI-based system and also towards other AI implementation to help upgrading interpersonal skills.

REFERENCES

- Azmi, A. N., Kamin, Y., Noordin, M. K., Md. Nasir, A. N., (2018), Towards Industrial Revolution 4.0: Employers Expectations on Fresh Engineering Graduates, *International Journal of Engineering & Technology*.
- Faritha, B. J., Revathi, R., Suganya, M., Gladiss, M. N. R., (2019), IoT based Cloud Integrated Smart Classroom for smart and a sustainable Campus, 9th World Engineering Education Forum, WEEF 2019.
- Hwang, G. J., Xie, H., Wah, B., Gašević, D., (2020), Computers and Education: Artificial Intelligence, <https://doi.org/10.1016/j.caeai.2020.100001>.
- Panchal, K., Shaikh, M. B., (2020), Artificial Intelligence used in Schools of China, *Proceedings of the 3rd International Conference on Advances in Science & Technology (ICAST)*.

- Shorey, S., Ang, E., Yap, J., Ng, E. D., Lau, S. T., Chui, C. K., 2019, A Virtual Counselling Application Using Artificial Intelligence for Communication Skills Training in Nursing Education: Development Study, *Journal of Medical Internet Research* 2019;21(10): e14658.
- Syahrudin, H., 2018, The Effect of Interpersonal Skills on Performance of Regional Secretariat Employees in Kapuas Hulu Regency, *Jurnal Terapan Manajemen dan Bisnis*, Volume 4: Number 2 September 2018. Page 192-201.
- Widjadja, A., Saragih, E. J., (2018), Analysis on the Effect of Hard Skills, Intrapersonal and Interpersonal Skills toward the Performance of Nurses (A Case Study on the Alumni of Husada Hospital Nursing Academy, Jakarta, Indonesia), *Journal of Research in Business and Management*, Volume 6: Issue 5 (2018) pp: 31-38.