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## A LOOK AT MILLENNIAL ATTITUDES TOWARD AI UTILITY IN THE CLASS

OU Zhenilin<sup>1</sup>, He Ben Xie<sup>1</sup>, Xiaohong Yang<sup>1</sup>, Bojia PI<sup>1</sup>, Reine De Ciel<sup>2\*</sup>, R.A. Xingran Zhao<sup>1</sup>

<sup>1</sup>South China University, China.

<sup>2</sup>De Montforte University in Leicester England, UK.

\*Corresponding Author Email: [Reinedeciel@live.com](mailto:Reinedeciel@live.com)

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### ARTICLE DETAILS

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### ABSTRACT

During the past several decades, Artificial Intelligence (AI) has developed rapidly and derived many useful utilities that could be used to satisfy the needs of society. One major area AI can provide relieve is in education. There are many areas including rural and war-torn countries that can use AI as a method of instruction. These are areas in education where quantity of insufficient teacher resource still maintains in a lower level. The goal of this research was therefore to investigate the lack of teacher resource and the attitudes of millennial toward AI utility. Two kinds of data source were contained in this research, primary and secondary source: Primary sources contained questionnaires, interviews; Secondary source contained information from pre-sessional academic resource, investigation result, and conferences. Result of the assessment showed most of the millennial keep optimistic toward AI utility.

### KEYWORDS

Artificial Intelligence, Virtual Reality, Higher Education Technology, Deep Learning, Chinese Millennials Attitudes Towards Technology.

## 1. INTRODUCTION

During the past several decades, the issue of insufficient teacher resource became deteriorated. UNESCO Institute for Statistics exposed that more than One-Half of children and adolescents are not learning worldwide: "Globally, six out of ten children and adolescents are not achieving minimum proficiency levels in reading and mathematics. The total – 617 million – includes more than 387 million children of primary school age (about 6 to 11 years old) and 230 million adolescents of lower secondary school age (about 12 to 14 years old). This means that more than one-half – 56% – of all children won't be able to read or handle mathematics with proficiency by the time they are of age to complete primary education. The proportion is even higher for adolescents, with 61% unable to achieve minimum proficiency levels when they should be completing lower secondary school [1]."

Meanwhile, the fear of Artificial Intelligence caused a panic after Stephen William Hawking expressed concern that artificial intelligence could supplant humans.

"We need to be quicker to identify such threats and act before they get out of control. This might mean some form of world government. But that might become a tyranny. All this may sound a bit doom-laden but I am an optimist. I think the human race will rise to meet these challenges [2]."

Hawking did not give in to the gloom and doom outlook on AI. The hope that he expressed is the hope that is leading the continued efforts for AI innovation by Chinese academics, scientists, and business owners. Mainland China is one place where efforts to have coexistence with machines is optimistically underway.

## 2. WHAT IS ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI), also known as Computational Intelligence. There is a debate about who the founding AI theorist is, however the term Artificial Intelligence (AI) caused a stir after Dartmouth conference in 1956. This conference attended by 175 participants from all around the world, including 43 PhDs and Post Docs invited as guests to share their aspirations with the experts on the future of AI [3]. Later researcher developed a large quantity of theories and principles to expand the

concept. This developed into the definition of intelligent machines that can react similarly as human intelligence to assistance people to work more efficiently. Likewise, artificial intelligence is a form of computational intelligence. For the purpose of this paper we will provide a definition here:

Computational intelligence is the study of the design of intelligent agents. An agent is something that acts in an environment—it does something. Agents include worms, dogs, thermostats, airplanes, humans, organizations, and society. An intelligent agent is a system that acts intelligently: What it does is appropriate for its circumstances and its goal, it is flexible to changing environments and changing goals, it learns from experience, and it makes appropriate choices given perceptual limitations and finite computation. The central scientific goal of computational intelligence is to understand the principles that make intelligent behavior possible, in natural or artificial systems. The main hypothesis is that reasoning is computation. The central engineering goal is to specify methods for the design of useful, intelligent artifacts [4].

Artificial Intelligence have been aggressively positioned by technology giants in recent years. However, there is one issue that continues to challenge the most astute technology research and development efforts: How to apply to a real-world application scenario and establish reliable business model? In the matter of traditional education, the quality of student education largely depends on the certification of teacher, and cause problems subsequently, such as, long period of training, High staffing and training cost, and imbalance between supply and demand. Therefore, such an industry that requires a knowledge intensive human resource, the existent of AI could radically reduce dependence on quantity of teachers. Moreover, proper use may improve the quality of instruction.

### 2.1 Current application of AI on education industry

Recent application of AI utility on education industry could be divided into adaptive learning, virtual assistants, expert system, and business intelligence. Professor Ashok Goel gave a talk at TEDxSan Francisco in November, 2016 about answering students' questions by using artificial intelligence in the forums of his online Knowledge-Based Artificial Intelligence (KBAI) class. The AI assistant was based on IBM's Watson platform, dubbed Jill Watson [5]. Jill was developed

specifically to answer the large quantity of forum posts by students who enrolled in an online course in computer science programming which is a prerequisite for Georgia Tech's online Master of Science. Jill Watson programme was initiated by Goel and a team of Georgia Tech graduate students in 2015. Most of students in the course were unaware that Jill was a robot. However, a few of students were suspicious, because it was reasonable and possible to use AI in the forums of AI course.

This paper is interested in the opinion of Chinese millennials currently enrolled in academic study related to business or economics about AI hard and software utility. The hope is to uncover a credible premise for future inquiry while examining a legitimate opportunity to solve a problem by correctly aligning available resources. This directly replies to the Youth Leagues request for innovation. It is critical for youth to take the lead in developing viable solutions to current problems. The problem of low teaching resources in rural areas is one that may be answered rather swiftly with the correct attention.

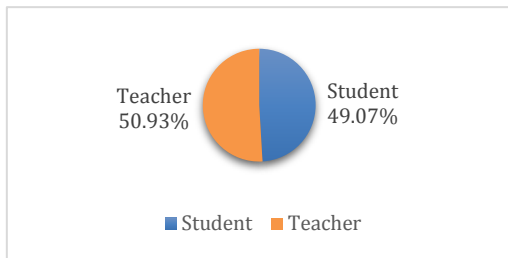
**3. METHODOLOGY**

This research is mainly constituted by secondary information including pre-sessional academic resource, investigation result, and conferences. The reason why our group decided to use this method is because it increases accuracy and efficiency. It was used to provide and support the overview of current the situation, including the distribution of education, derivation and development of artificial intelligence.

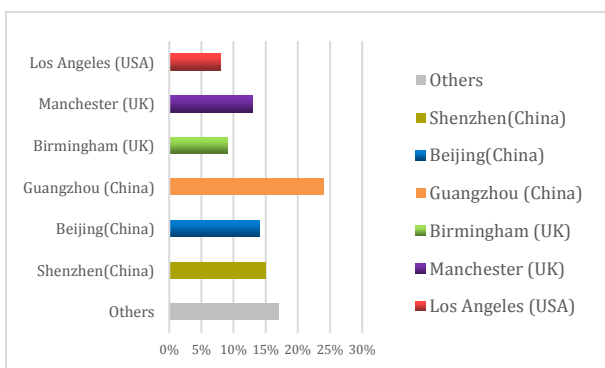
The questionnaire was used in the following research in order to understand millennial students and teachers' attitudes on using artificial intelligent. Therefore, a questionnaire was the most suitable method of obtaining the primary information. The title of this questionnaire was called "Survey of Artificial Intelligence in the Classroom". The focus of this questionnaire were students and teachers. This sample has relevant opinions on classroom and teaching, support the questionnaire to be more realistic and accurate. This questionnaire contained 12 key questions, 108 copies were distributed via online platform and offline distribution. The result of the survey will be illustrated as percentages, pie charts and bar graphs will be used to aid analysis and data display clarity. According to the result of the questionnaire we will be able to calculate the possibility to activate the robotic teachers in the classroom.

**4. RESULT AND ANALYSATION**

According to the following figures (Figure1,2), it can be seen that 50.93% of respondents are teachers and 49.07%. Most of them come from China. It accounts for 53%. There are also some respondents come from UK (22%), USA (8%) and other areas (17%).

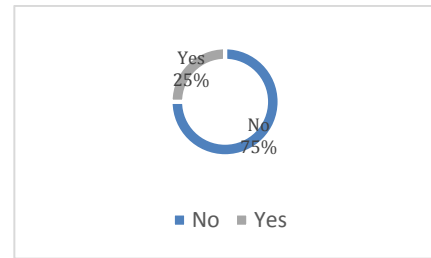


**Figure 1:** The profession of the respondents



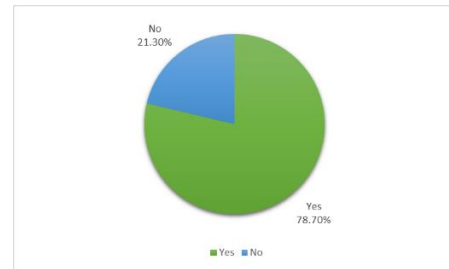
**Figure 2:** The regions that respondents come from

The sample shows that there are 75% of respondents do not understand what the artificial intelligence is. (Figure 3)



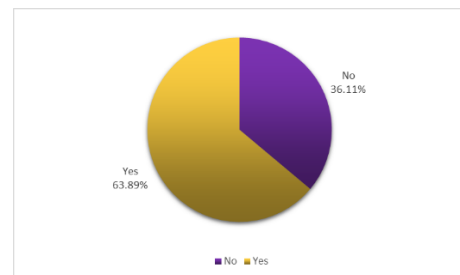
**Figure 3:** Understanding of artificial intelligence

The result shows that many mobile phones have set up the artificial intelligence system. 78.70% of the millennial use this kind of mobile phones as daily need. It is not hard to be seen that AI has already penetrated millennial's daily lives.



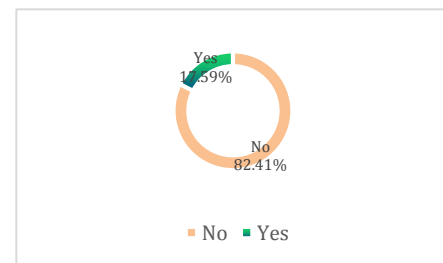
**Figure 4:** AI system on the mobile phone

The following figure reflects that there are still many of the millennial afraid of artificial intelligence recently (63.89%). Compare to Figure 3, the fear of artificial intelligence shows positive correlation with the understanding of AI.

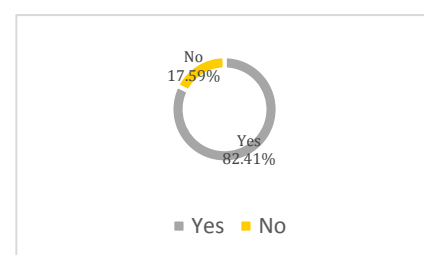


**Figure 5:** Fear about artificial intelligence

The result of participation in artificial intelligence classrooms were illustrated as figure 6 shows there is a few respondents (82.41%) have participated in a class with artificial intelligence before. This reflects that artificial intelligence has not penetrated into the field of education yet.

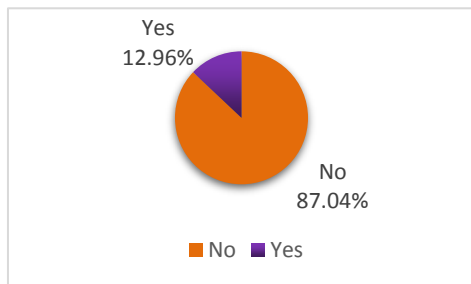


**Figure 6:** Participation in artificial intelligence classrooms



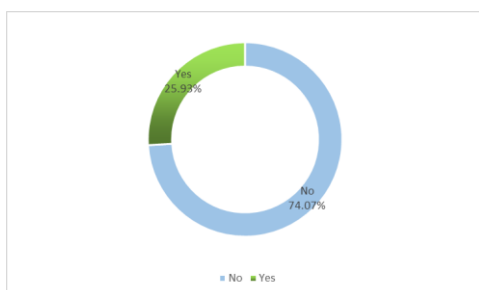
**Figure 7:** Believe to be taught by a robot in the future

Even though some of the millennial expressed concern to the artificial intelligence. However, there are still 82.41% of them believe that humans might and willing to taught by robots in the future. (Figure 7)

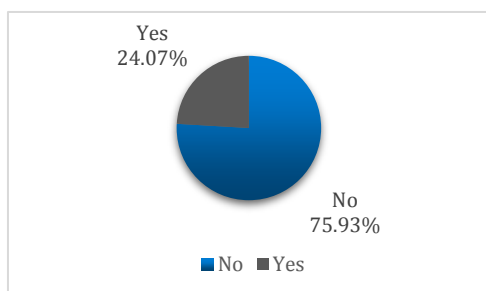


**Figure 8:** Believe in the ability of robots to teach alone

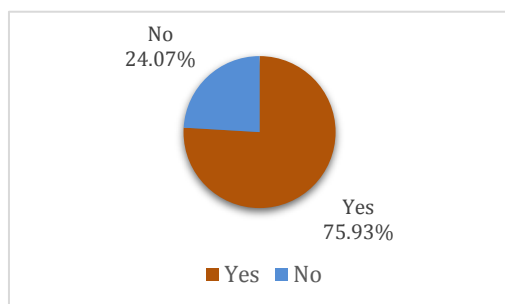
As the figure 8 illustrated, most of respondents believe that robotic teachers cannot teach alone, accounts to 87.04%. Nonetheless, most of them leave message about believe in robot could serve as assistant in the classroom. According to the following figure 9 and 10, it shows that 74.07% of respondents believe that it is not easy to communicate with robotic teachers and also 75.93% of millennial state that robotic teachers cannot maintain the order of classroom.



**Figure 9:** Easier to communicate with a robotic teacher

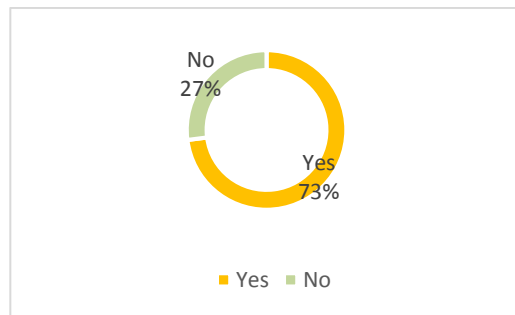


**Figure 10:** Robotic teachers can maintain the order of classrooms



**Figure 11:** Humans can control the robotic teachers well

There are 75.93% people believe that humans can control the robotic teachers as well (Figure 11). It also means that millennials believe AI can be well controlled under the technology development of future and not concern about the status replacement (AI supplant human)



**Figure 12:** Robotic teachers can do better than humans

There are 73% millennial maintained positive and optimistic attitude to the development on AI and also believe that robotic teacher can do better than humans. (Figure 12)

## 5. DISCUSSION

The majority of the data is self-evidence, falling within parameter. Nevertheless, a data nullification accrues with the question of fear of Artificial Intelligence. 75% subject states they do not actually know what Artificial Intelligence is. The same group also attested that they are afraid of Artificial Intelligence without adequate knowledge what Artificial Intelligence is. The premise of being afraid of AI must be rejected. This nullification demonstrated an error of in original hypothesis. Conversely, the majority of this group believe the smart phone is a form of AI, but they knowledge is not enough for them to feel confident that they know have adequate understanding that what AI is. There is opportunity for future research to future research of the causal relationship between education and fear of AI.

## 6. CONCLUSION

As can be seen that, the resource of teacher is deficient, the goal of this research is analysis the problem of lack of teacher resource, and the attitudes of millennial toward to AI utility. The result shows the reason why people feel concern about AI utility is because the existent artificial intelligence might be a potential threat of entire earthling, therefore suffer a merciless status replacement. However, AI teacher is still a great solution to solve the problem of deficient teacher resource, and also create convenience in our life. As the result of research, the problem that people considering might be solve in the future. In summary, our group suggest that people should be optimistic, be confidence toward AI utility development and application.

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