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Artificial Intelligence and Its Ever Expanding Horizon in Educational Sector

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Abstract: ***Artificial Intelligence is growing rapidly and hadit's impact in every sector of the society. The lives of humans get easier and simpler by the emergence of Artificial Intelligence. The transformative power of AI crosses all economic and social sectors, including the education sector. It promises to reduce the barriers to access education, automate management process, analyze the learning patterns and optimizeslearning process with a view to improve learningoutcomes. This paper explains the need for sustainable development in artificial intelligence with special reference to the United Nations sustainable development goal No.4 Quality Education. It investigates the educational implications of these emerging technologies and the increasing speed of adopting new technologies in the education sector. We are trying topinpoint some of the challenges as well as the opportunities offered by artificial intelligence in the education system.***

Keywords: Celebrity endorsement, Consumer buying behaviour, Factors influencing consumer buying behaviour.

INTRODUCTION

In the past years, advancements in the technology, both online and offline services management to bring changes and transformations in the learning and teaching methods. All human actions are based on anticipated futures. We cannot know the future because it does not exist yet, but we can use our current knowledge to imagine futures and make them happen. The better we understand the present and the history that has created it, the better we can understand the possibilities of the future. To appreciate the opportunities and challenges that artificial intelligence (AI) creates, we need both good understanding of what AI is today and what the future may bring when AI is widely used in the society. AI can enable new ways of learning, teaching and education, and it may also change the society in ways that pose new challenges for educational institutions. It may amplify skill differences and polarize jobs, or it may equalize opportunities for learning. The use of AI in education may generate insights on how learning happens, and it can change the way learning is assessed. It may re-organize classrooms or make them obsolete, it can increase the efficiency of teaching, or it may force students to adapt to the requirements of technology, depriving humans from the powers of agency and possibilities for responsible action.AI is now a part of human's normal lives that is, nowadays human beings are surrounded by this technology from automatic parking systems, smart sensors for taking spectacular photos and personal assistance. Similarly artificial intelligence is being felt and the traditional methods are changing drastically. The true severance of education is yet to serve using Artificial Intelligence.

The earliest substantial work in the field of Artificial Intelligence was done in the mid-20th century by the British logician and computer pioneer Alan Mathison Turing. He proposed that a test that involves the capacity of a human to make distinction of conversations with machine or other humans. If such a distinction is not at all detected we can admit the fact that we have an intelligent system or AI. In 1968 A.I. pioneer Marvin Minsky offered one of the most influential definitions: "Artificial Intelligence is **the science of making machines do things that would require intelligence if done by men**"

Figure 1: Different dimensions of AI

Thinking Humanly	**Thinking Rationally**
'The exciting new effort to make computers think... machines with minds, in the full and literal sense.' (Haugeland, 1985)'[The automation of] activities that we associate with human thinking, activities such as decision-making, problem-solving, learning...' (Bellman, 1978)	'The study of mental faculties through the use of computational models.' (Charniak & McDermott, 1985)'The study of the computations that make it possible to perceive, reason, and act.' (Winston, 1992)

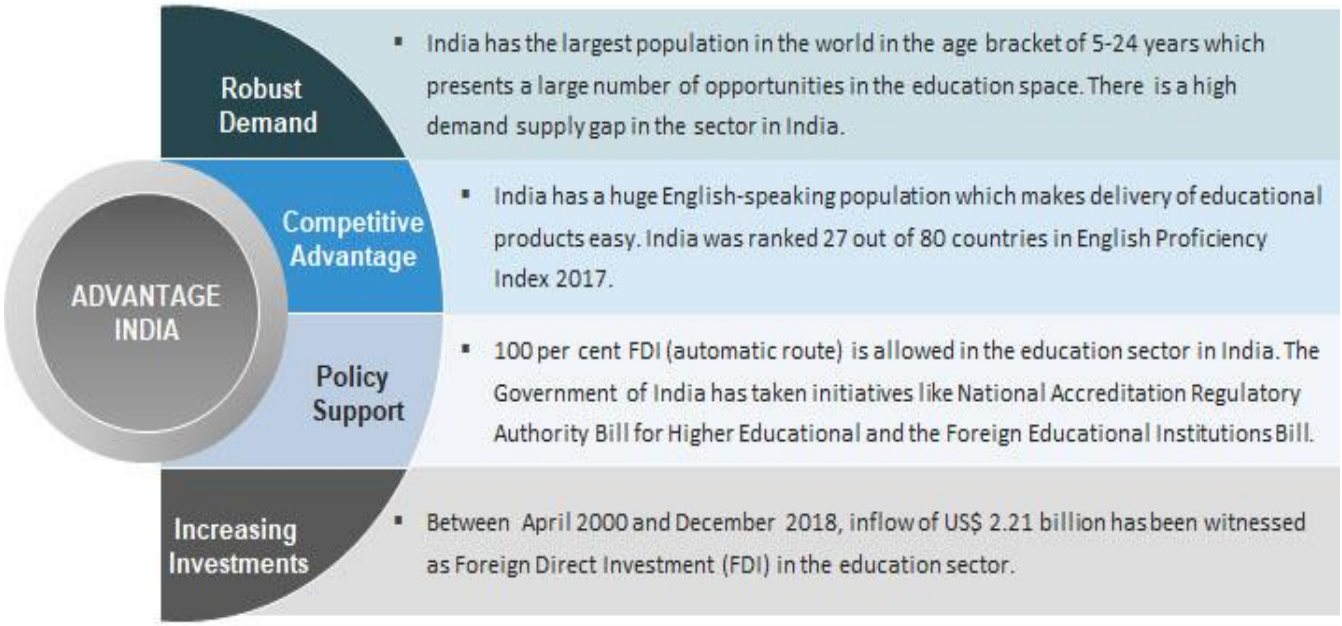
Acting Humanly	Acting Rationally
'The art of creating machines that perform functions that require intelligence when performed by people.' (Kurzweil, 1990)'The study of how to make computers do things at which, at the moment, people are better.' (Rich & Knight, 1991)	'Computational Intelligence is the study of the design of intelligent agents.' (Poole, et al., 1998)'AI... is concerned with intelligent behavior in artifacts.' (Nilsson, 1998)Figure 1. Different dimensions of AI

The table above contains some definitions of AI by Stuart J. Russell and Peter Norvig in their book "Artificial Intelligence: A Modern Approach (2010).

In the past years, advancements in the technology, both online and offline services managed to bring changes and transformations in the learning and teaching methods. The true severance of education is yet to arrive using artificial intelligence. In a number of fields AI has proven its role as game changing factor, making huge transformations that are unimaginable in the past decades. The concept of AI is much difficult to understand, especially when it comes to the application of AI into education and other sectors of society. The future of education is highly connected with developments on new technologies and computing capabilities of the highly equipped and intelligent modern machines. In the field of education, AI have a significant impact, thereby transforming the way teachers perform by offering new teaching aids. They could be able to revolutionise the way in which students learn through personalized learning and greater access to knowledge thus also potentially facilitating more inclusive education.

EDUCATION SECTOR - INDIAN SCENARIO

Fig 2:



Educational Implications of AI

The increasing adoption of the AI technology for various applications in the education sector and the integration of various advanced technologies with AI are expected to drive the growth of the AI in education market.

The most commonly used tools like Google talks to the latest Amazon Alexa shows just a beginning to the innumerable possibilities of AI. Let's have a look at some of the impacts of AI

Automation of the Administered level tasks

AI is a high potential platform for automating administered tasks for both the organizations and it's members. **Artificial intelligence can automate basic activities in education, like grading.** In college, grading of home works and tests for large lecture courses is a tedious work. Even in lower grades, teachers often find that grading takes up a significant amount of time, that could be used to interact with students, prepare for class, or work on professional development. Today, essay-grading software is still in its infancy but will improve in coming years, so that allowing teachers to focus more on in-class activities and student interaction than grading

AI can make trial-and-error learning less

Trial and error is a critical part of learning, but for many students, the idea of failing, or even not knowing the answer, is paralyzing. Some simply don't like being put on the spot in front of their peers or authority figures like a teacher. Artificial intelligence could offer students a way to experiment and learn in a relatively judgment-free environment, especially when AI tutors can offer solutions for improvement. In fact, AI is the perfect format for supporting this kind of learning, as AI systems themselves often learn by a trial-and-error method.

Smart Content and virtual lectures

The concept of smart content is an emerging topic and this technology has finally reached the classroom. AI helps to digitize textbooks or to create customizable learning digital interfaces that apply to students of all age ranges and grades. Cram101 is one such system. It uses AI to condense the content in textbooks into a more digestible study guide. In the near future virtual lectures will swipe out online lectures with the help of robots. Already virtual human guides and facilitators that can think, act and react with humans by using gesture recognition technology in a natural way exist.

ANALYSIS

Artificial Intelligence can be defines as the ability of computer systems to perform tasks and activities that usually can only be accomplished using human intelligence. In the world of education, this technology is revolutionizing schools and classrooms, making educators jobs a lot easier. The future of higher education is highly connected with the developments on new technologies and computing capacities of the new intelligent machines. In this field, advances in artificial intelligence open to new possibilities and challenges for teaching and learning in higher education, with the potential to fundamentally change governance and the internal architecture of institutions of higher education. Education systems have also been actively reforming themselves to ensure that learners are acquiring skills required by an AI enabled future workplace. These reforms are happening across all educational sub- sectors, from the early years to continuing education. The lifelong learning orientation is of course appropriate in light of how fast AI technologies evolve. As such, this process of rethinking and redeveloping educational programs in response to AI might need to become a regular and continuous process.

The role of AI in higher education is to enhance the human thinking and to improve the education process, not to reduce it to a set of procedures for content delivery, control, and assessment. Moreover, many sets of tasks that are currently included in the teaching practice in higher education will be replaced by AI software based on complex algorithms designed by programmers that can transmit their own biases or agenda in operating systems. Higher education is now taking its first steps into the uncharted territory of the possibilities opened by AI in teaching, learning and higher education organization and governance. Implications and possibilities of these technological advancements in non- invasive brain- computer interfaces and artificial intelligence are opening new possibilities to rethink the role of the teacher, or make steps towards the replacement of teachers with teacher-robots, virtual "teacher robots" (Bayne 2015; Botrel et al.2015). Providing affordable solutions to use brain computer interface devices capable to measure when a student's is fully focuses on the content and learning tasks (Chen et al.2015; Gonzalez et al. 2015)is already possible and super- computers, such as IBM Watson, can provide an automated teacher presence for the entire duration of a course. Other than tutoring there are other applications of AI for education also they include, personalizing learning, testing, automating tasks etc. AI not only helps on teaching and learning also it provides feedback to both about the success of the course as a whole. There are widespread implications for the advancement of AI to the point where a computer can serve as a personalized tutor able to guide and manage students learning and engagement. This opens to the worrying possibility to see a superficial, but profitable, approach where teaching is replaced by AI automated solutions. Especially as we are at a point where

we need to find a new pedagogical philosophy that can help students achieve the set of skills required in the twenty first century for a balanced civic, economic and social life.

CONCLUSION

"Artificial Intelligence is the science of making machines do things that would require intelligence if done by men" In the past years, advancements in the technology, both online and offline services managed to bring changes and transformations in the learning and teaching methods. The true severance of education is yet to arrive using artificial intelligence. In a number of fields AI has proven its role as game changing factor, making huge transformations that are unimaginable in the past decades.
In the field of education, AI have a significant impact, thereby transforming the way teachers perform by offering new teaching aids. They could be able to revolutionize the way in which students learn through personalized learning and greater access to knowledge thus also potentially facilitating more inclusive education. Moreover many of the core teaching activities can be replaced with the proper use of Artificial Intelligence. Artificial intelligence can automate basic activities in education, like grading.

This is the right time for universities and schools to rethink about the traditional method of teaching and should adopt new easy and modern methods. Now we are living in a fast moving society the current generation should be aware of the new generation technologies. Software can reduce the academic and administrative work of teachers in the schools and colleges. Furthermore institutions of higher education see ahead the vast register of possibilities and challenges opened by the opportunity to embrace AI in teaching and learning. It is also advisable to have a detailed research on the application new technologies in the education sector and be updated.

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