Social Change through Artificial Inteligence in Higher Education, A Sociological Study : Special Reference to Bhavnagar District

H. L. Chavda, (Ph.D.) Department of Sociology
Maharaja Krishnakumarsinhji, Bhavnagar University, Bhavnagar, Gujarat, INDIA

ORIGINAL ARTICLE

Author
H. L. Chavda Ph.D.

shodhsamagam1@gmail.com

Plagiarism Checker X - Report
Originality Assessment

Overall Similarity: **9%**

Date: Jun 15, 2023
Statistics: 230 words Plagiarized / 2673 Total words
Remarks: Low similarity detected, check with your supervisor if changes are required.

ABSTRACT

The state of Gujarat is a progressive and leading state in the field of education. Intelligence (AI) is gaining importance in all sectors of the economy and social sector, and hence in higher education as well. Over the past few years, this concept of "artificial intelligence in education (AIED)" has grown significantly. The present study attempted to find out how the concept of artificial intelligence can be applied to teaching and learning in higher education and the implications of using AI in higher education. It examines the learning implications of ever-evolving technologies on learning as well as teaching methods and extent. In the last few years in the state of Gujarat, there has been a modernization and a change in the method in the field of education. Online education has become widespread as a modern method of education during the Corona epidemic. AI offers opportunities for higher education services to become easily accessible not only inside the classroom but also outside the classroom at extraordinary speed. This study seeks to explore how AI can become an integral part of universities and access its immediate and future impacts on various areas of higher education. Challenges in implementing AI in these organizations were also discovered. This study will successfully provide in-depth information for educators and in-depth knowledge for building educational models that will provide opportunities for future development. State established and private universities in Gujarat continue to play an important role in what they do for student learning orientation. The present study attempts to find out how the effects are seen through AI and how the social mobility and change of the student has been affected.

April to June 2023   www.shodhsamagam.com
A Double-blind, Peer-reviewed and Referred, Quarterly, Multidiciplinary and Multilingual Research Journal

Impact Factor
SJIF (2023): 7.906

823

KEY WORDS

Social Impact, Higher Education, Artificial Inteligence.

INTRODUCTION

The state of Gujarat is a progressive and leading state in the field of education. Over the past few years, the concept of "Artificial Intelligence in Education " has grown significantly. The present study attempted to explore how the concept of artificial intelligence can be applied to teaching and learning in higher education and the implications of using AI in higher education. It examines the learning implications of ever-evolving technologies on learning as well as teaching methods and extent. In the last few years, there has been modernization and change in the education system in the state of Gujarat. Online education has become widespread as a modern method of education during the corona epidemic. AI offers opportunities for higher education services to become easily accessible not only inside the classroom but also outside the classroom at extraordinary speed. This study seeks to explore how AI can become an integral part of universities and its immediate and future impacts on various areas of higher education. Challenges in implementing AI in these organizations were also discovered. This study will provide in-depth knowledge for successful teachers to create in-depth information and educational models that will provide opportunities for future development. State established and private universities in Gujarat continue to play an important role in what they do for the educational orientation of students. The current study tries to find out what effects AI has had and how student social mobility and change has been affected. There is little agreement on ultimate definitions, with answers to the question of what is artificial intelligence ' being answered by philosophical positions dating back to Aristotle. The future of higher education is intrinsically linked to developments in new technologies and the computing capabilities of new intelligent machines.

In this field,advances in artificial intelligence open up new possibilities and challenges for teaching and learning in higher education,with the potential to fundamentally change the governance and internal architecture of higher education institutions. Higher education institutions are playing an important role in the development of the country. Economic and social development of an individual depends on two important factors,Knowledge and Education. People who are highly educated are more likely to have high-skilled jobs and higher wages, thus more likely to increase their standard of living. Thus people in developing countries have more profound effects of higher education because education equips the individual to lead a creative and more productive life to live the life they choose. Good education and skilled students also lead to higher growth and improvement across the country, especially in developing countries.

Meaning of Artificial Intelligence

Teachers and students interact physically in the classroom and much of the work is done manually in higher education institutions. But in the last 20 years, and due to major technological developments, mostly due to the Internet, people's way of learning and their work has changed, and a new concept that has evolved in the last few years is "Artificial Intelligence."

Since 1956,we have had various hypothetical understandings of artificial intelligence influenced by "advances in chemistry, biology, linguistics, mathematics, and AI solutions". However,definitions and understandings remain widely contested. Most approaches center around a limited view of knowledge or fundamentally ignore the political, psychological and philosophical aspects of the idea of knowledge. With the ultimate goal of our examination of the impact of artificial intelligence on teaching and learning in higher education, we propose a basic definition provided by a literature survey of some past definitions in the field. Subsequently, we can define artificial intelligence as an automated structure that can participate in human-like processes for example, "learning, adapting, synthesizing, self-correcting and using data for complex processing tasks".

April to June 2023   www.shodhsamagam.com
A Double-blind, Peer-reviewed and Referred, Quarterly, Multidiciplinary and Multilingual Research Journal

Impact Factor
SJIF (2023): 7.906

824

Artificial intelligence is the imitation of human cognitive processes for example speech and visual recognition dialect interpretation and virtual decision-making by machines and robots. The ability of machines to think and act like people has given AI an extraordinary place in all fields. Artificial intelligence is everywhere, from smart sensors to personal assistants in various parts of our lives.

AI has led to a number of drastic changes in the field of higher education. "Artificial Intelligence helps students and teachers make their educational experience amazing". Artificial Intelligence is classified as the ability and improvement of data innovation based PC frameworks or different machines to complete jobs that usually require human knowledge and rational thinking. Despite the fact that AI can make the world a better place, AI comes with its own issues. Take the case of driverless vehicles. Driverless vehicles open another era of innovation advancements in transportation. It greatly benefits both the vehicle business and consumers from a financial and fair point of view. The use of driverless vehicles frees drivers from the normal task of driving and reduces accident rates. Driverless vehicles will replace taxi, truck and Uber drivers.

Education in Gujarat

The state of Gujarat is one of the leading states in the field of education. The higher education sector also sees significant student enrollment. Among the top 10 states with the highest number of colleges in India, Gujarat ranks eighth. To check some statistics.

University in Gujarat State

Sr. No.	Type of University	Total
1.	State Universities – Higher Education	14
2.	State Universities – Technical	02
3.	Sectoral Universities	27
4.	Central University	01
5.	Deemed University	02
6.	Institute of National Importance	09
7.	Private Universities	52
	Total	107

Colleges in Gujarat State

Sr. No.	Type of College	Total
1.	Government College	110
2.	Grant in Aid College	357
3.	Self Finance College	140
4.	Research Institute	13
5.	GBTC	03
6.	Gram Vidyapith	14
	Total	637

Number of students in colleges of Gujarat state

Sr. No.	Type of College	Total
1.	Private unaided	496075
2.	Private Aided	476509
3.	Govt	218935
	Total	1191519

April to June 2023   www.shodhsamagam.com
A Double-blind, Peer-reviewed and Referred, Quarterly, Multidiciplinary and Multilingual Research Journal

Impact Factor
SJIF (2023): 7.906

825

Type of university and college education in Gujarat State

Sr. No.	Level of Education	Total
1.	Under Graduate	1207245
2.	Post Geaduate	143866
3.	PGDiploma	7236
4.	Diploma	139741
5.	Certificate	12725
6.	Integrated	14515
7.	Ph.D.	7430
8.	M.Phil.	937
	Total	1533695

Objective of the Study

Studies conducted in social sciences are done with some specific purpose, the objectives of the present study are mainly as follows:

1. Examining the extent of higher education in Gujarat.
2. Examining the role of artificial intelligence in higher education institutions
3. Examining the impact of artificial intelligence in higher education institutions
4. Examining the social implications of artificial intelligence.

Methodology of Study

A specific methodology is used for social studies found in the social sciences. Methodology has also been used in the present study. In which sample selection, data collection technique, type of research etc. have been discussed. The present study is descriptive in nature. Secondary data sources have been used for data collection. In which library, magazines, website etc. have been used. In the present study, all post graduate Department and B.Ed. College of Maharaja Krishnakumarsinghji Bhavnagar University. A study unit has been created using purposeful sampling method on the Non Random Sampling method.

Role of Artificial Intelligence in Education

Many research works show that in higher education, artificial intelligence is important for teachers and students because the use of such technologies encourages more flexible learning solutions for students without any limitations. With the help of artificial intelligence, universities around the world are increasing the number of students due to increased flexibility and speed. However, its implementation in education has also proved to be relatively expensive but comes out economically when compared to other manual work related costs. However, in the long run the use of artificial intelligence among college students is more cost effective compared to more traditionally conducted learning and manual tasks. Developed countries of the world have successfully applied the process of artificial intelligence. However, developing countries are still at a rudimentary stage compared to developed countries in implementing artificial intelligence. Poor infrastructure, poor information access, lack of support from institutions, insufficient required resources, poor technical skills, these are various obstacles for developing countries wishing to implement artificial intelligence in higher education. AI is used in grading in the education system in this process teachers can mechanize the grading of students for certain set of questions. AI can also be applied in adaptive and personalized learning to meet the needs of students. AI helps teachers to access students' comprehension ability on their lectures and empowers them to provide appropriate cues for students. He acts as a tutor for the students and makes them learn the concepts easily.

Artificial Intelligence based projects provide supportive input for both students and teachers. It empowers instructors to examine student performance and improve the guidance they provide to students. AI frameworks

April to June 2023   **www.shodhsamagam.com**
A Double-blind, Peer-reviewed and Referred, Quarterly, Multidiciplinary and Multilingual Research Journal

Impact Factor
SJIF (2023): 7.906

826

in schools have changed the way students explore and collaborate in integrated innovation. This has the effect of replacing teachers as facilitators by imparting intuitive learning knowledge to students. Students can learn by experimenting strategies without fear as AI promotes their learning and helps them improve. The information obtained from AI frameworks will change the way schools find, instruct and motivate students. In fact in some places it can even replace teachers in certain situations. It has become a learning companion that helps students in their learning process.

Thus we can say that AI is a well-designed tool that provides flexible arrangements, collaboration opportunities and options, and control over the learning process that can provide opportunities for learners and teachers to effectively drive the learning process. Also, AI in higher education institutions has the responsibility of teachers. Using AI teachers can create a learning environment that allows students to develop a better understanding of content and make connections with instructors and students.

Challenges for Artificial Intelligence in Education

"Key Challenges for Artificial Intelligence in Education as proposed by Woolf " include a virtual coach for each student with indispensable help that displays social information, and re-organization of user information. doing. Helps students self-direct, self-assess, collaborate and then some, integrates a tremendous array of information about individual learning, social settings, learning settings and personal interests, increases the interconnectedness and openness of classrooms around the world, and takes learning outdoors. is In study hall and in student life outside of school. The work that artificial intelligence is doing in the advanced digital world is amazing and in the near future more and more early learning is dependent on it to advance knowledge.

Positive Effects of Artificial Intelligence on Society

Artificial intelligence can dramatically improve the efficiency of our workplaces and increase the amount of work that humans can do. When AI takes over repetitive or dangerous tasks, it frees up the human workforce to do the work they are better equipped to do—tasks that involve creativity and empathy for others. If people are doing work that is more attractive to them, it can increase happiness and job satisfaction.

With better monitoring and diagnostic capabilities, artificial intelligence can dramatically impact healthcare. By improving the performance of healthcare facilities and medical institutions, AI can reduce operating costs and save money. McKinsey estimates that big data could save medicine and pharma up to $100B annually. The real impact will be in patient care. The potential for individualized treatment plans and drug protocols, as well as providing providers with better access to information in medical facilities, will change patient care lives.

Just with the introduction of autonomous vehicles and AI our society will gain countless hours of productivity and impact our traffic congestion issues not to mention the other ways it will improve productivity on the job. Freed from the stressful commute, humans can spend their time in a variety of other ways.

AI and Society The expected advent of AI technology has brought short, medium and long-term changes to our society. The penetration of AI into society has brought major implications for professionals used to dealing with modern technology, for legal practitioners to nurture the impact of AI with its regulatory implications, for technocrats who frequently use this modern technology. reach an accurate decision in a complex technical issue. AI is generating significant impacts by providing enormous help to common citizens in a cost-effective manner, while also presenting some entangled challenges that threaten their fundamental rights, including privacy violations. From this perspective, this paper makes a calibrated, comprehensive and comprehensive attempt to analyze briefly how the advent of this AI technology is effectively contributing to social changes by giving advantages and disadvantages to humans. In doing so, this study will deal with analyzing how, through the introduction of various regulatory implications, the application of AI in society can be controlled so that it hardly causes any harm to society that threatens the security and privacy of humans' personal data. Abusing their human rights and this paper will also mention how AI is reaping immense benefits to society in various sectors such as agriculture, healthcare etc.

April to June 2023   **www.shodhsamagam.com**
A Double-blind, Peer-reviewed and Referred, Quarterly, Multidiciplinary and Multilingual Research Journal

Impact Factor
SJIF (2023): 7.906

827

CONCLUSION

In conclusion, this research on "Study of teachers' perspective about learning through AI with special reference to selected universitiy of Gujarat" shows the perception of students which helped to further observe the role of various modern artificial intelligence methods adopted by the universities in enhancing the success. Ability to learn. The study also states that the future potential of artificial intelligence in higher education institutions is very high and has many possibilities in this field, but the current state of AI in higher education institutions is demanding intensive investment in terms of funds and time. Thus institutions that are planning to adopt AI need to consider various factors just to ensure that the adoption of AI will become a turning point in their learning process that will benefit students, teachers as well as institutions. Higher education institutions that incorporate AI into all of their programs remain leaders in their fields and are already reaping the benefits associated with it. At the end of all the discussion and analysis done in the paper we can say that AI is impacting higher education institutions. significantly. AI expansion is forcing many jobs to become obsolete and thus require entirely new skill sets. Higher education institutions need to train and develop their students to face the challenge of AI revolution and upgrade them to fight successfully in the AI era.

REFERENCES

1. Kumar C., "Artificial Intelligence: Definition, Types, Examples, Technologies," 31 August 2018. [Online].

2. Jain Suvrat & Jain Roshita (2019), ROLE OF ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION- AN EMPIRICAL INVESTIGATION, *IJRAR,* VOLUME 6 I ISSUE 2 I APRIL– JUNE 2019, E ISSN 2348 –1269, PRINT ISSN 2349-5138.

3. Lata Suman, Khatri H. L., (2016),*Education and Society,* Paragon; First edition (1 January 2016)

4. Nimbalkar M.R., *Sociology of Education,* Neelkamal Publications Pvt. Ltd

5. Paivandi Saeed, Joshi K. M., (2016) *Equity in Higher Education A Global Perspective,* STUDERA PRESS, New Delhi.

6. Paivandi Saeed, Joshi K. M., (2016), *Private Higher Education A global perspective,* B.R.Publishing.

7. Sharma Chandru, "Artificial Intelligence in Education", A New technology in Education that bring the new experience in the developing world, *IJRAR,* VOLUME 6 I ISSUE 2, APRIL– JUNE 2019 E ISSN 2348 –1269, PRINT ISSN 2349-5138

8. www.education.gov.in

9. http://gujarat-education.gov.in/higher

****

April to June 2023   www.shodhsamagam.com
A Double-blind, Peer-reviewed and Referred, Quarterly, Multidiciplinary and Multilingual Research Journal

Impact Factor SJIF (2023): 7.906

828