

MMK: ACE SMT.MITHIBAI MOTIRAM KUNDNANI: ACCOUNTANCY COMMERCE ECONOMICS

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DECEMBER 2023 STUDENT'S SPECIAL ISSUE PROF.CA KISHORE PESHORI (PRINCIPAL) Dr. AASHISH S. JANI (EXECUTIVE-EDITOR)

FROM THE DESK OF THE EDITOR...!



After Covid-19 the education world has been changing very fast with drastic majorchanges in the research dimensions. UGC and MHRD have launched many virtual platforms with online depositories, e-books and other online teaching/learning materials. Combination of the traditional technologies' with mobile/web technologies to a single platform with depositories would enhance better accessibility and flexibility to education.

The main objectives of NEP 2020 clearly define the pivotal role in catalysing interdisciplinary /multi-disciplinary research culture at UG level.

Students' research at undergraduate and post graduate level is the key to success towards real life education. Implementation of this student centric research requires establishment of the Academic Bank of Credits (ABC), a national level facility which will be a bank for academic purposes with students as academic account holders. A minimum of 20 credits of the 160 credits in four years undergraduate degree programmes will be earned via research activities according to guidelines prepared under NEP 2020.

Further, it will encourage and make it possible for all students to open an academic bank account to commute credits to award any degree/research fellowship/certificates.

The ability to integrate classroom knowledge with practical problems is important to decide research problems of the real world and to provide realistic solutions for the same. Four years Undergraduate bachelor's degree programme objectives are clearly defined in these directions. This calls for developing research experiences in students and developing system of offering real life research projects with keen interest towards pursuing realistic research projects. Here role of research organisations, higher institutions or research centre can support research internships as providers.

Keeping such ideas in mind, I feel humbled to bring out the Third students special Issue of our reputed E-Journal "MMK: ACE", including research papers for the first time from students' community at various undergraduate, post graduate and Doctoral level Programmes of our College. This volume develops the fact finding empirical approach among students community at higher education.

I extend my sincere gratitude to the Management of H.S.N.C. Board and our respected Principal Prof. Dr. CA Kishore Peshori for their constant support and motivation towards a strong Research foundation.

Finally, a big thank you to the Peer-reviewers and Publishing House for helping us in publishing this E-Journal. I invite feedback and suggestions from our Readers, Researchers and Academicians for further improvement in our E-Journal "MMK: ACE".

Dr. Aashish S. Jani Vice-Principal & Executive Editor

PRINCIPAL'S MESSAGE...!



Dear Members of the Academia,

It brings me immense joy and pride to witness the continued growth of SMT. M.M.K. College, especially in the realm of research, as evidenced by the expansion of our esteemed Research Centre in Commerce (Business Policy & Administration) and the recent approval in Accountancy.

I extend my heartfelt gratitude to the dynamic editorial team, led by Dr. Aashish Jani, Vice Principal, for their unwavering commitment and dedication to advancing the cause of research at our institution. Their tireless efforts have played a pivotal role in steering our academic community toward the frontiers of knowledge.

In the spirit of our rich cultural heritage, I am pleased to include a Sanskrit shloka in this research endeavour, symbolizing the fusion of tradition and progress in our scholarly pursuits:

"चरैवेतिचरैवेति..." "Keep Walking, Keep Walking",

The present focus on student-centric research in this Third edition of MMK: ACE is indeed a commendable initiative taken at the opportune moment. It reflects our collective commitment to nurturing the research acumen of our students, a vital aspect of our academic mission.

I express my sincere appreciation to the Research Committee, whose proactive approach has not only fostered the development of new faculty but has also provided a platform for meaningful research at both undergraduate and postgraduate levels. The previous volumes of MMK: ACE have been well-received by the academic community, and I am confident that this edition, emphasizing student research, will further elevate our standing.

Kudos to the editorial team for curating diverse themes that delve into various facets of the Economy and Education sector. I extend my appreciation to the Course Coordinators, specialized students, academicians, research guides, and scholars whose valuable contributions have enriched the content of this journal.

I applaud the continuous efforts of the editorial board in cultivating and promoting a robust Research Culture across all multidisciplinary programs. Your dedication is instrumental in inspiring our faculty and students to embrace the role of researchers and critical thinkers.

As we embark on this intellectual journey through the pages of MMK: ACE, I wish the entire team the very best. May the ideas shared in this volume pave the way for positive outcomes and catalyze many more students and teachers to embark on the rewarding path of research and scholarly exploration.

With warm regards,

Prof. Dr. CA Kishore Peshori (Principal)

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A Study on Opportunities & Challenges Posed by AI among College Students in Mumbai

MMK: ACE VOLUME 3: PAPER NO. 16

Aditi Kapoor Asst. Professor Thakur College of Science & Commerce

Abstract:- This study explores the ever-dynamic realm of Artificial Intelligence (AI) and assesses the experiences of college students in Mumbai as they maneuver through the opportunities and challenges posed by AI which is changing the face of today's youth. The research is done on this transformative technology using a mixed research method approach i.e., both target audience surveys and interviews have been explored to get a comprehensive understanding of the AI impact on the academic, professional, and personal lives of college students. The opportunities offered by AI from enhanced learning experiences to potential career options, are examined in-depth. The study topic explores how college students effectively utilize AI tools for educational enhancement, skill development, and creative problemsolving. It also investigates the influence of AI on shaping career aspirations and student adaptability to the evolving job market. Concurrently, the challenges posed by AI are analyzed, covering ethical and privacy concerns, and the potential impact on employment patterns. The research sheds light on how college students perceive AI applications and their preparedness to navigate the ethical complexities of this new-age technology. This research analyses the apprehensions regarding job displacement and the need for seamless integration of AI into the workforce. The outcomes of this study contribute valuable insights into AI adoption in education at large. By understanding Mumbai college perspectives, stakeholders can tailor educational programs, policies, and ethical frameworks that tackle the benefits of AI. This study promotes an informed and empowered generation of individuals, poised to navigate the AI-facilitated future.

Keywords:- Artificial Intelligence, workforce, college, students.

I. INTRODUCTION

In recent times that are marked by explosive technological growth, Artificial Intelligence (AI) stands at the absolute front, especially in reshaping the education, employment and societal dynamics. Artificial Intelligence (AI) is the ability of a machine to work like intelligent human beings. As India strives to gain a knowledge-driven economy, the implications of AI on the nation's educational institutions and its emerging workforce become a critical area of exploration. This study will unravel the complexities of AI's influence on college students in Mumbai, focusing on the multitude of opportunities and the challenges it poses within the context of their academic, professional, and

personal realms.

AI is triggering a drastic change in teaching and learning practices. AI helps the college students, representing the next generation of professionals, to transform and deal with the new-age dynamics. From educational tools driven by AI to the potential restructuring of industrial sectors, understanding how Mumbai college students perceive and interact with AI is very important for fostering informed decision-making and preparing them for the challenges of an AI-infused future.

The human race is inching faster towards technological progression and hence it becomes extremely important to check onto the adapting ability and perspectives of Mumbai's college students toward AI. By comprehensively examining the pros and cons posed by AI, this study aims to share valuable insights to educational institutions, policymakers, and other stakeholders. The outcomes and findings would help ascertain the strategies that harness the benefits of AI while mitigating its potential drawbacks. This will help ensure that the coming generation is equipped to thrive in an AI-driven world.

II. RESEARCH OBJECTIVES

- To assess the awareness levels among college students in Mumbai regarding Artificial Intelligence (AI) and its applications in education.
- To assess the extent to which college students in Mumbai actively engage with AI technologies for educational purposes.
- To identify and analyse the opportunities that AI presents for college students in Mumbai, the focus being, on enhanced learning experiences, skill development, and potential career options.
- To assess the ethical considerations and concerns related with the use of AI in education and jobsector, as perceived by college students in Mumbai.
- To assess the level of concern among college students in Mumbai regarding the impact of AI on jobopportunities.
- To explore the AI contribution to the future careers of the college students in Mumbai and the skillsthey require to adapt to an AI-driven workforce.

Through these objectives, a roadmap is prepared for the research for an overall understanding of theopportunities and challenges posed by AI among college students in Mumbai. This study will help suggest recommendations for educational institutions, policymakers, and other stakeholders on how to gain to the maximum from AI

addressing the challenges faced by college students in Mumbai.

III. HYPOTHESIS

A. Hypothesis 1:

- H0: There is a significant awareness level among college students in Mumbai regarding Artificial Intelligence (AI) and its applications in education.
- H1: There is no significant awareness levels among college students in Mumbai regarding Artificial Intelligence (AI) and its applications in education.

B. Hypothesis 2:

- H0: There is a significant active engagement of college students in Mumbai with AI technologies for educational purposes.
- H1: There is no significant active engagement of college students in Mumbai with AI technologies for educational purposes.

C. Hypothesis 3:

- H0: There are significant opportunities that AI presents for college students in Mumbai, the focus being, on enhanced learning experiences, skill development, and potential career options.
- H1: There are no significant opportunities that AI
 presents for college students in Mumbai, the focus being,
 on enhanced learning experiences, skill development, and
 potential careeroptions.

D. Hypothesis 4:

- H0: There are significant ethical considerations and concerns related with the use of AI in theeducation and job sector, as perceived by college students in Mumbai.
- H1: There are no significant ethical considerations and concerns related with the use of AI in the education and job sector, as perceived by college students in Mumbai.

E. Hypothesis 5:

- H0: There is significant concern among college students in Mumbai regarding the impact of AI on job opportunities.
- H1: There is no significant concern among college students in Mumbai regarding the impact of AI on job opportunities.

F. Hypothesis 6:

- H0: There is a significant AI contribution to the future careers of the college students in Mumbai and the skills they require to adapt to an AI-driven workforce.
- H1: There is no significant AI contribution to the future careers of the college students in Mumbai and the skills they require to adapt to an AI-driven workforce.

IV. STATEMENT OF PROBLEM

The proliferation of AI in societal dynamics has surely helped bring in transformative changes across segments, notably in education and the workforce. This study aims to further address some key concern areas that will help in getting the next generation ready for the AI world and its multifaceted applications, particularly within the educational context. Based on the researcher's experience, it is important to studythe opportunities and challenges posed by AI to the college students in Mumbai in developing a strong technological core within the realms of education and job sector. The current study aims to study the challenges and prospects involved in dealing with the education progressions of college students in Mumbai and their job prospects possibilities.

V. SIGNIFICANCE OF THE STUDY

The findings of this study will give valuable insights to the policymakers into the awareness levels, the perceptions and the needs of the college students in Mumbai regarding AI and its integration into the education sector while addressing potential challenges. This will further help in the development of ethical guidelines and practices for the integration of AI in educational settings. This study will also helpcareer counsellors since it will give them an insight into how college students in Mumbai align their career aspirations with the evolving job market influenced by AI. The findings can help in formulating career guidance programs that would further help the college students in Mumbai adapt skills as required to meet the industry standards. This study will also give deeper insights to the employers and industry heads with regard to the readiness of the college students in Mumbai for the AI-driven workforce. Understanding about the perceptions and adaptiveness towards AI in the college students in Mumbai contributes to ensuring that they remain competitive in a globalized, technology-driven economy.

VI. SCOPE

This study will capture diverse perspectives of college students across different educational institutions in Mumbai.

- The research will also cover a range of AI applications relevant to education, including but not limited to AIdriven educational tools.
- The scope encompasses students from various academic disciplines.
- The study will focus on the current academic year, considering the dynamic nature of technology and the swift evolution of AI-related tools and applications.

VII. LIMITATIONS

Here are potential limitations for your study on the opportunities and challenges posed by AI among college students in India:

- The data is collected from only the college students in Mumbai.
- While incorporating interviews, the study may face constraints in achieving in-depth exploration due to time and resource limitations.

VIII. RESEARCH METHODOLOGY

To attain above mentioned objectives, study conducted by using both primary and secondary data.

A. Research Design:

This study adopted a mixed-methods research design, combining surveys and interviews i.e., quantitative and qualitative approaches to provide a comprehensive understanding of the opportunities and challenges posed by AI among college students in Mumbai.

B. Sampling Technique: Random sampling employed to ensure proper representation from diverse academic disciplines

A structured mixed questionnaire of 18 closed & open ended questions regarding a Study On Opportunities & Challenges Posed by AI Among College Students In Mumbai was administered via Google form & sent out to respondents of various college going age groups through WhatsApp.

The secondary data consisted of various references that already exist and will be published in the future like books, articles in newspapers, peer-reviewed journals, research thesis. The articles in magazines as well as Web and Internet suppor considered for the purpose of secondary data collection related to the topic.

- SAMPLING FRAME & UNIT: The research was mainly focused on the college students in Mumbaiwithin the age group of 18-26 years
- SAMPLING SIZE: A sample of 100 respondents was selected for the study.

IX. DATA ANALYSIS & INFERENCES

 The quantitative data collected from 100 respondents from the age group of 18-26 which comprised of 34% females and 65% males, was analysed on the basis of descriptive research methodology.

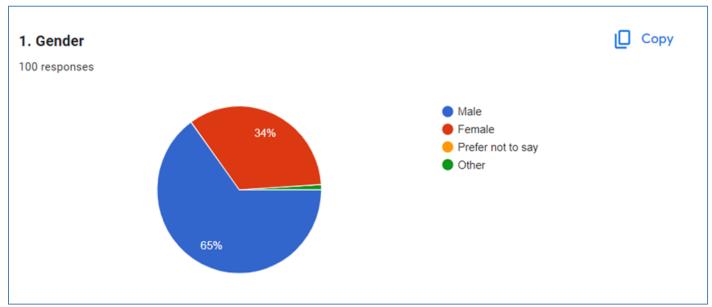


Fig. 1: Gender

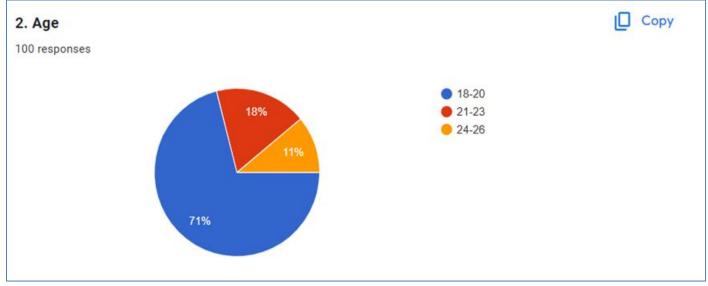


Fig. 2: Age

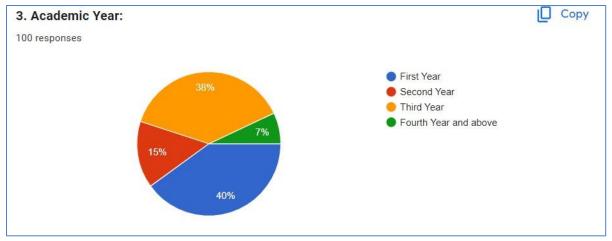


Fig. 3: Academic Year

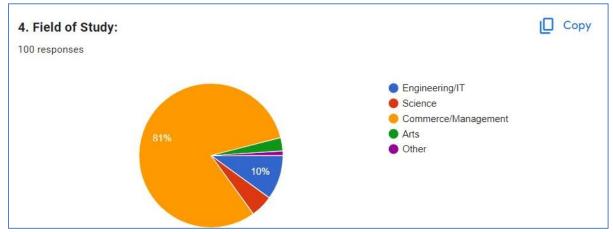


Fig. 4: Field of Study

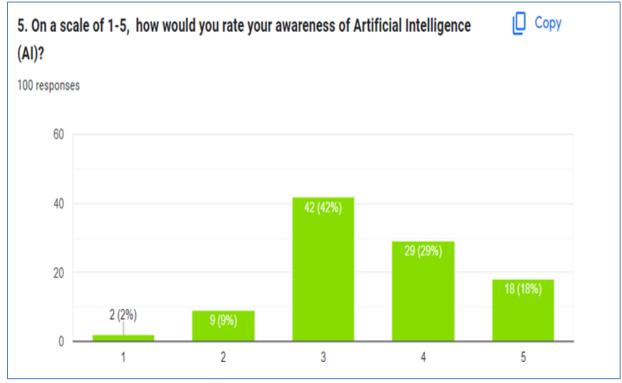


Fig. 5: Awareness Levels Of Artificial Intelligence (AI)

X. ACTIVE INVOLVEMENT LEVELS WITH AI TECHNOLOGIES FOR EDUCATIONAL PURPOSES

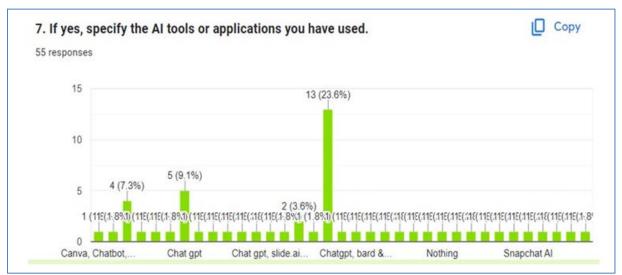


Fig. 6: AI Tools and Applications Used

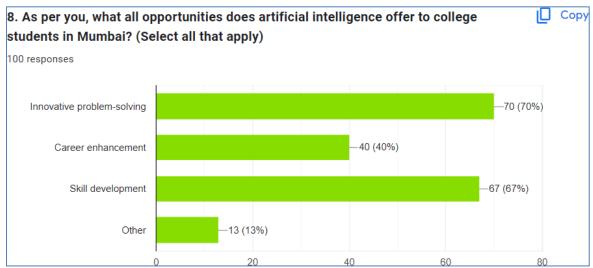


Fig. 7: AI Offered Opportunities to Mumbai College Students

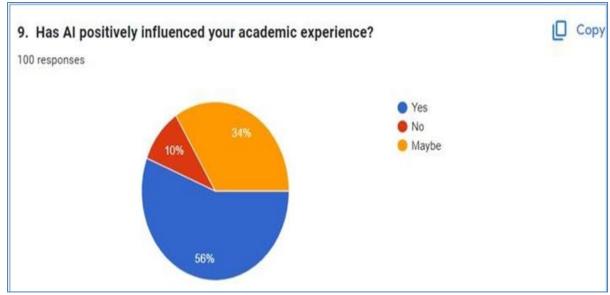


Fig. 8: Positive Influence of AI on Academic Experience

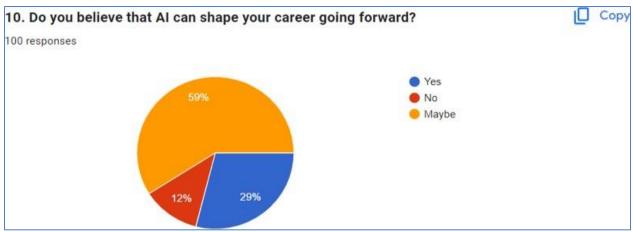


Fig. 9: Posibility of AI Shaping Career In Future



Fig. 10: AI Contributing to your Career in the future

29 responses
Different codings
Many ways
No
It makes work efficient
Gives better career opportunities
Less workload and more knowledge
Don't know
It can help me get data regarding my project and help me giving tips for skill development
Automating time consuming tasks. Learning skills in a time efficient format.

Fig. 11: AI Contributing to your Career in the future

11. If yes, in what ways do you see AI contributing to your career in the future?
29 responses
Easy to get details
Ggt
•
Yes
Maybe
Maybe
Solving small problems, saving time, giving consolidated data
It gives the information of facts and gives accurate information.
It will make tasks easier with providing accurate data for the purpose of research which can help in quick decision making.it in the future there are more ai models which can help solve problem which a person

Fig. 12: AI Contributing to your Career in the future

respons	ses
,	
Maybe	
Solving	small problems, saving time, giving consolidated data
It gives	the information of facts and gives accurate information.
decisio	ake tasks easier with providing accurate data for the purpose of research which can help in quick n making.it in the future there are more ai models which can help solve problem which a person his daily life it can also make multitasking easier
focus o then be	be used to automate the process of generating reports. This would free up my time so that I could not more strategic tasks. All could be used to analyze data and identify trends. This information could used to make better decisions about my work. All could be used to personalize my interactions with This would help me to provide them with the best possible service.
	nelp my career in robotics for building different AI related tools to use in homes, colleges, offices in automobiles.

Fig. 13: AI Contributing to your Career in the future

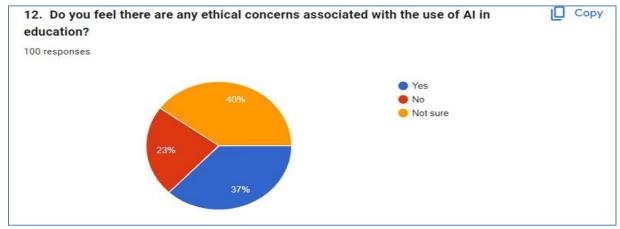


Fig. 14: Posibility of Ethical Concerns Related with the Use Of AI in Education



Fig. 15: The Impact of AI on education & employment

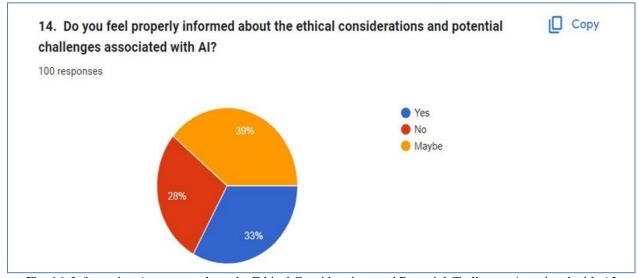


Fig. 16: Information Awareness about the Ethical Considerations and Potential Challenges Associated with AI

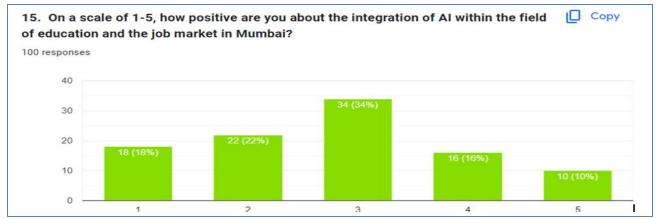


Fig. 17: Levels Of Positivity About the Integration of AI Within the Field of Education And The Job Market In Mumbai

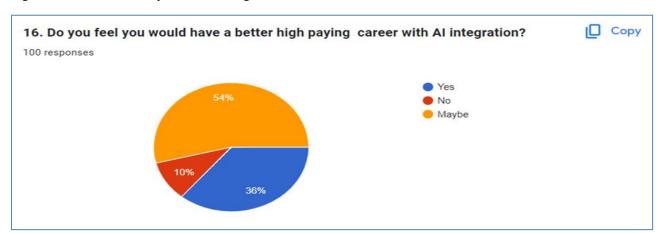


Fig. 18: Levels of Possibility of Having High Paying Career with AI Integration

7. If no, then	state the reason for the same.
7 responses	
State	
Ygt	
**	
Yes	
No	
No	
	l annual average AI engineer salary in India is around 10 lakhs, which is significantly higher ge salary of any other engineering graduate. At high-level positions, the AI engineer salary as 50 lakhs
	Al is created and used then even the smallest job wont be necessary for humans to do as Al ility to do better than a human.

Fig. 19: Then state the reason for the same

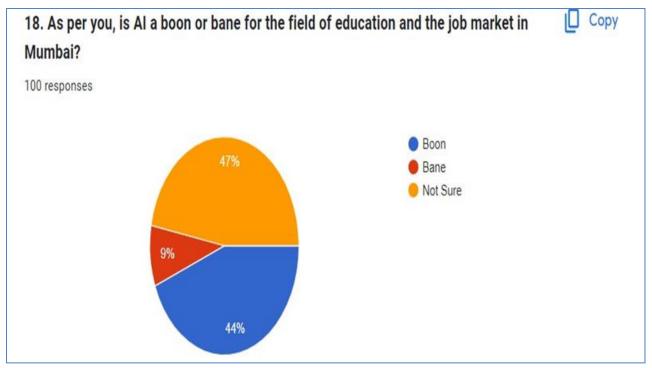


Fig. 20: Percentage Count of People Taking AI as Boon Or Bane For The Field Of Education And The Job Market In Mumbai

XI. DATA ANALYSIS

Data collected from the respondents was recorded and coded for its analysis and interpretation. This process involved identifying, analyzing, and reporting patterns within the data, providing rich, contextual insights. Appropriate statistical tools used for testing the hypothesis and achievement of objectives.

By employing a mixed-methods approach, this research methodology captured the multifaceted nature of the opportunities and challenges posed by AI among college students in Mumbai, ensuring a thorough and nuanced analysis of the subject matter.

XII. EXPECTED OUTCOME

- There will be an enhanced understanding of AI awareness among the college students inMumbai.
- Clear insights into the perceived opportunities offered by AI, including enhanced learning experiences, skill development, and potential career options.
- In-depth understanding of the challenges associated with AI, like ethical considerations, privacyconcerns, and job displacement fears.
- Better understanding of student expectations and recommendations for the integration of AI-related skills and courses into the curriculum and workforce.
- There would be practical recommendations for policymakers, educational institutions, and other stakeholders based on the study's findings.
- Contribution to the existing body of knowledge on AI in education, particularly within the context of college students in Mumbai.

XIII. CONCLUSION

The study on opportunities and challenges posed by AI among college students in Mumbai gives insights into the ever-evolving landscape of education in the digital world. The findings show adynamic interplay between the probable benefits and the challenges related to the integration of AI in education among college students in Mumbai.

The study helps reveal recognition at large, among college students in Mumbai of the multitude of opportunities presented by AI which include enhanced learning experiences, personalized education routes, and the development of critical skills relevant to the future workforce. The futuristic attitudes observed among students reveal a willingness to accept the transformative potential of AI in shaping their academic and work journeys.

Having said that, the study also brings to the frontline a set of challenges that require careful consideration. Concerns about ethical implications, job displacement, and the need for an exact understanding of AI technologies emphasize the complex nature of this integration. In addition, the digital divide and different levels of access to AI resources among students expose the potential disparities in the educational experience, raising questions about comprehensiveness.

Last but not least, the findings emphasize the vital importance for educational institutions, policymakers, and industry stakeholders to collectively navigate the integration of AI into college students in Mumbai. Addressing the recognized challenges requires a complete approach that includes ethical guidelines, picked-out educational initiatives, and efforts to bridge the digital gap. By leveraging the opportunities while diminishing the challenges, the higher education sector in Mumbai can

harness the full productivity of AI to prepare students for a future distinctlymarked by technological advancements and innovations. The study serves as an appeal for all stakeholders to actively shape the course of AI in the education and job sector, ensuring a balanced and inclusive transition to a digitalized learning experience.

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