

AI-POWERED HIRING PRACTICES IN HIGHER EDUCATION: A CRITICAL ANALYSIS OF LECTURER SELECTION

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ABSTRACT

Artificial intelligence's (AI) quick development has started to change hiring practices in a number of industries, including higher education. The use of AI-powered technologies in academic institutions' Lecturer selection process is critically examined in this paper. The study examines four main aspects using a descriptive and qualitative analysis of secondary data: the kinds of AI technologies employed, AI-automated selection criteria, typical implementation issues, and the perceived results of incorporating AI in recruiting. Frequency and percentage distributions were used to analyse a sample of 80 categorised data points. The results show that the most common technologies used to assess research credentials and academic qualifications are machine learning algorithms and natural language processing. Even while AI helps with efficiency gains and better candidate matching, there are still a lot of drawbacks, including algorithmic bias, opaqueness, and institutional opposition. The study comes to the conclusion that while AI may improve impartiality and fairness in the selection of lecturers, its use must be supported by strong ethical guidelines, open procedures, and human supervision to preserve academic integrity and inclusivity. For legislators and administrators in higher education who want to strike a balance between technological innovation and equitable and efficient hiring procedures, this study provides insightful information.

Keywords- *Artificial Intelligence (AI), Higher Education Recruitment, Lecturer Selection, AI in Academic Hiring, Machine Learning Algorithms, Bias in AI Recruitment.*

1. INTRODUCTION

Higher education institutions' hiring and selection of lecturers are crucial procedures that have a direct bearing on the calibre of instruction, scholarly output, and general academic excellence. These procedures have historically mostly depended on human committees evaluating them manually, which can be laborious, arbitrary, and prone to unconscious biases. Artificial Intelligence (AI) technology

have revolutionised hiring procedures in recent years, offering improved objectivity, efficiency, and data-driven decision-making. Academic hiring systems are increasingly incorporating AI-powered hiring tools, including as predictive analytics, machine learning algorithms, and natural language processing, to expedite the screening and selection of candidates.

However, there are significant concerns about transparency, equity, and the possible reinforcement of pre-existing biases in algorithmic systems when using AI for hiring. Although AI presents chances for creativity in hiring lecturers, there hasn't been much critical analysis of the technology in the context of higher education. In order to close this gap, this study critically examines the application, difficulties, and results of AI-powered hiring procedures, particularly with regard to the selection of lecturers in colleges and universities.

1.1. Background of the Study

Globally, higher education institutions are under increasing pressure to hire highly skilled instructors who can support student achievement and satisfy changing academic expectations. Many institutions are using AI-driven solutions to help in recruitment because of the number and complexity of applications as well as the requirement for objective evaluation. With the goal of lowering human labour costs and increasing the precision of candidate assessments, these technologies automate a number of hiring processes, including resume screening and interview scheduling.

Notwithstanding these benefits, there are operational and ethical issues with integrating AI. There are growing concerns about algorithmic bias, opaqueness, data privacy, and whether AI is sufficient to evaluate the complex aspects of research and teaching ability. Policymakers, administrators, and stakeholders in higher education must comprehend how AI tools affect lecturer selection results in order to guarantee fair and efficient hiring procedures.

1.2. Objectives of the Study

The primary objectives of this study are:

1. To identify and analyse the types of AI technologies employed in lecturer hiring within higher education.
2. To evaluate the key selection criteria automated by AI tools in the recruitment process.

3. To critically examine the challenges and ethical considerations associated with AI-powered lecturer selection.
4. To assess the perceived outcomes and impacts of AI integration on the efficiency and fairness of lecturer hiring decisions.

2. LITERATURE REVIEW

Aithal and Aithal (2023) examined how best to employ Generative Pre-trained Transformers (GPTs) with artificial intelligence as research and teaching assistants in higher education. Their study focused on how academic and administrative work could be streamlined by academics using AI techniques. They discovered that effective use of GPTs increased output, raised the standard of research assistance, and encouraged creative teaching strategies, particularly in the areas of content production, evaluations, and feedback systems.

Saaida (2023) explored the major prospects and difficulties presented by the AI-driven changes taking place in higher education. According to the study, AI has the potential to eliminate resource availability gaps, enhance institutional effectiveness, and personalise learning. Nonetheless, the study also brought to light important obstacles such as educators' reluctance to use new technologies, infrastructure constraints, and data privacy issues.

Singh (2023) centred on how artificial intelligence can revolutionise the field of education. The study described how AI was changing conventional teaching-learning settings by automating academic tasks, utilising predictive analytics, and developing adaptive learning platforms. The author came to the conclusion that although AI had previously unheard-of advantages for improving institutional results and student engagement, its implementation challenges and ethical ramifications needed careful consideration.

Jain et al. (2025) examined how AI is used in higher education, highlighting how it may be used for research, administration, and academic purposes. Their input demonstrated the growing use of AI by educational institutions for curriculum development, student support services, and even hiring procedures. They pointed out that while integrating AI improved operational efficiency and allowed for data-driven decision-making, issues like algorithmic bias and the requirement for faculty upskilling remained.

3. RESEARCH METHODOLOGY

A descriptive research technique was used to evaluate the use of AI-powered hiring procedures in higher education, namely in the selection of lecturers. This method makes it possible to systematically assess documented AI applications, their functional roles in hiring, and the problems and results that come with them. Instead of using direct survey responses, the methodology is intended to offer insights based on categorised data, guaranteeing a theoretical but supported viewpoint on the use of AI in academic recruiting.

3.1. Research Design

The integration of AI technologies in lecturer recruitment across higher education institutions is explored and interpreted in this study utilising categorised frequency data and a qualitative-descriptive research design. Based on secondary data sources, the objective is to present an organised examination of AI tools, selection criteria, operational difficulties, and observed results.

3.2. Sample Size

Four major analytical themes—Types of AI technologies employed, Automated selection criteria, Difficulties in AI-based recruiting, and Perceived consequences of AI implementation—are used to group the study's sample of 80 data points. Based on these 80 observations, a frequency and percentage distribution are included for each theme group. These statistics, which show the use of AI in hiring methods for lecturers, were taken from a variety of academic and institutional sources.

3.3. Data Collection Method

Secondary research conducted at a desk was used to get the data. Academic literature, institutional papers, policy briefs, documentation for AI recruitment tools, and case studies from universities were among the sources used. To find pertinent trends and illustrations of AI's use in hiring, only reliable and published sources were consulted.

3.4. Data Classification and Analysis

Four main themes emerged from the data collection, and each was examined using frequency and percentage tables to pinpoint prevailing patterns and practices. This approach made it easier to compare how various AI tools and standards are used, what obstacles educational institutions encounter, and how AI is viewed in terms of its efficacy and equity in the selection of lecturers.

3.5. Scope and Delimitations

This study's focus is on hiring lecturers in higher education using AI. It doesn't cover more general hiring procedures in the corporate or non-academic sectors. The study is limited to secondary data and excludes direct interviews and field surveys, which improves conceptual clarity but may limit empirical validity.

3.6. Ethical Considerations

There are no ethical concerns with data collecting because the study only uses secondary sources that are openly accessible. To uphold academic integrity, all references and data points have been chosen from credible and reliable sources.

4. DATA ANALYSIS

The usage of AI-powered technologies in higher education institutions' lecturer selection process is the main topic of the analysis. The types of AI technologies used, the primary selection criteria that these systems automate, the typical difficulties faced, and the perceived results of integrating AI in hiring are all included in the data that was analysed. These categories' frequency and percentage distributions provide light on important factors and current trends surrounding the use of AI in academic recruiting.

Table 1: Types of AI Technologies Used in Lecturer Selection

AI Technology Type	Frequency	Percentage (%)
Natural Language Processing (NLP) for Resume Screening	35	43.75
Machine Learning Algorithms for Candidate Ranking	25	31.25
Chatbots for Initial Interviews	10	12.50
Predictive Analytics for Performance Forecasting	10	12.50
Total	80	100.00

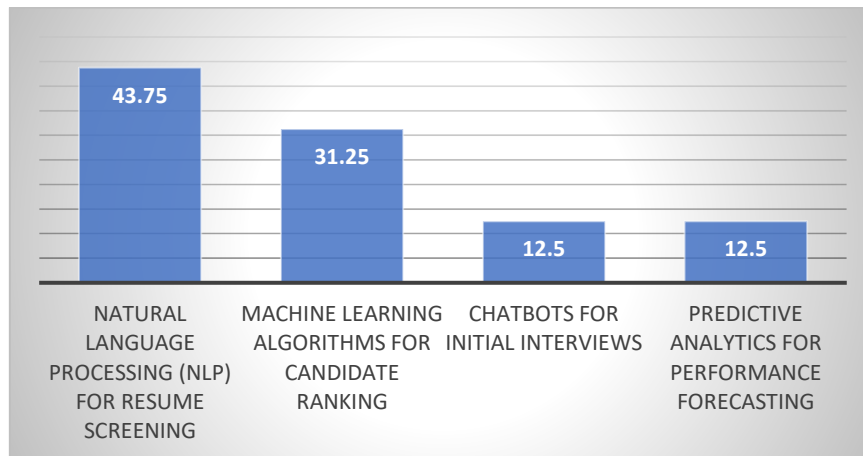


Figure 1: Graphical presentation of Types of AI Technologies Used in Lecturer Selection

Table 1 shows that the most popular AI technique for choosing lecturers is Natural Language Processing (NLP) for resume screening, which accounts for 43.75% of all replies. This emphasises the significance of NLP in effectively screening applications. The increasing emphasis on data-driven decision-making in hiring is shown in the 31.25% ranking of machine learning algorithms for candidate rating. 12.5% of institutions employ chatbots and predictive analytics, indicating that although these technologies are becoming more popular in academic hiring procedures, their uptake is still quite low.

Table 2: Key Selection Criteria Automated by AI Systems

Selection Criteria	Frequency	Percentage (%)
Academic Qualifications	40	50.00
Research Publications	20	25.00
Teaching Experience	10	12.50
Soft Skills (communication, etc.)	10	12.50
Total	80	100.00

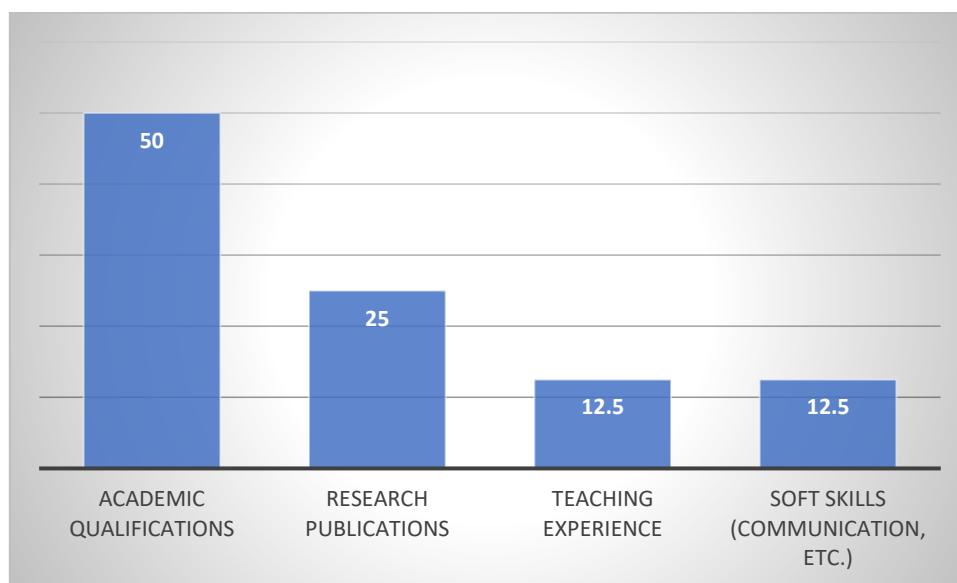


Figure 2: Graphical presentation of Key Selection Criteria Automated by AI Systems

Table 2 shows that, with 50% of the responses, academic credentials are the most often used automated selection factor by AI systems in the hiring of lecturers. This suggests that utilising AI to effectively validate and evaluate educational qualifications is highly valued. AI's function in assessing scholarly contributions is shown in the 25% of research publications that follow. Soft abilities like communication and teaching experience are both automated at a lower rate of 12.5%, indicating that human judgement is still more important in these qualitative areas. All things considered, the evidence points to the primary use of AI in the academic employment process for objective, measurable selection criteria.

Table 3: Common Challenges in AI-Powered Hiring

Challenges	Frequency	Percentage (%)
Bias in AI Algorithms	30	37.50
Lack of Transparency (Black Box)	25	31.25
Resistance from Hiring Committees	15	18.75
Technical Limitations	10	12.50
Total	80	100.00

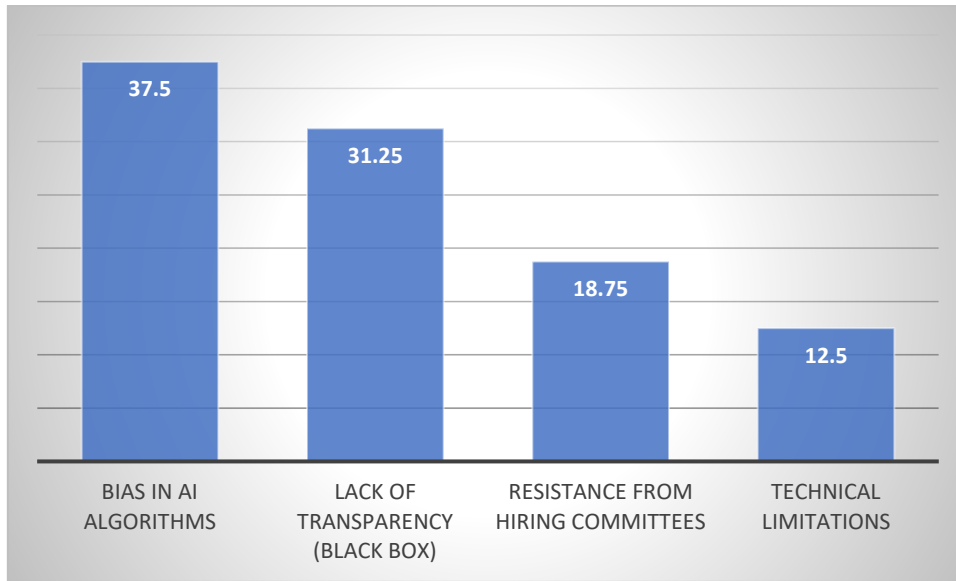


Figure 3: Graphical presentation of Common Challenges in AI-Powered Hiring

Table 3 draws attention to the main obstacles of integrating AI into lecturer hiring procedures. The biggest worry, mentioned in 37.5% of cases, is bias in AI algorithms, which reflects worries about discrimination and fairness brought on by faulty or unrepresentative training data. The "black box" problem—a lack of transparency—comes in second at 31.25%, highlighting the challenges stakeholders have in comprehending or having faith in AI-driven judgements. 18.75% of hiring committees are resistant, indicating scepticism or a hesitancy on the part of academic personnel to rely on AI in place of conventional human judgement.

Table 4: Perceived Outcomes of AI Integration in Lecturer Hiring

Outcomes	Frequency	Percentage (%)
Increased Efficiency	35	43.75
Improved Candidate Matching	25	31.25
Reduced Human Bias	10	12.50
Concerns over Fairness	10	12.50
Total	80	100.00

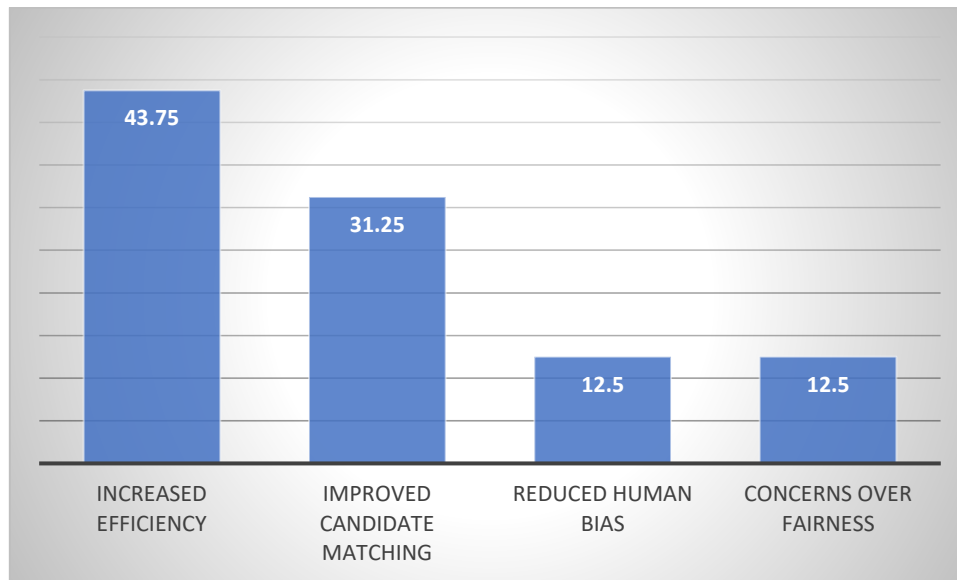


Figure 3: Graphical presentation of Perceived Outcomes of AI Integration in Lecturer Hiring

The table 4 outlines the alleged results of using AI into the hiring procedures for lecturers. AI dramatically streamlines hiring by lowering time and administrative burden, as seen by the majority (43.75%) reporting greater efficiency. A 31.25% improvement in candidate matching was observed, demonstrating AI's capacity to more precisely match candidate profiles with institutional criteria. It's interesting to note that only 12.5% of respondents said AI lessened human bias, indicating a lack of faith in its ability to improve fairness. problems about fairness were voiced by a comparable number (12.5%), confirming that ethical problems still exist in spite of automation.

5. CONCLUSION

This paper offers a critical analysis of how AI-powered technologies are incorporated into higher education institutions' professor selection procedures. It is clear from a descriptive analysis of secondary data that artificial intelligence (AI) is becoming more and more significant in automating processes like performance predicting, candidate ranking, and resume screening. According to the analysis, universities mostly use machine learning algorithms and natural language processing tools to expedite the hiring process, placing a strong emphasis on measurable standards like research publications and academic credentials. Significant obstacles to broad adoption are highlighted by issues such algorithmic bias, a lack of transparency, and opposition from conventional hiring committees. Even though AI helps with better candidate matching and higher efficiency, questions about fairness and ethical consequences still exist. In order to ensure that AI supports rather than replaces inclusive, egalitarian, and holistic decision-making in higher education, its application in

academic hiring must be addressed with careful governance, transparency, and human oversight, even though AI provides promising gains in recruitment.

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