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Developing Ethical Artificial Intelligence (AI) Systems for Recruitment and Hiring Processes in Abia State, Nigeria

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ABSTRACT

The purpose of this study was to examine the influence of the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, Nigeria. Two specific objectives were identified, two research questions were raised and two null hypotheses were formulated to guide this study. The study adopted a descriptive survey design and was conducted in Abia State, Nigeria. The population of the study was 200 candidates of Secondary School Teachers. The sample size was 133 Candidates of Qualified Teachers. There searcher developed "Recruitment and Hiring Process Questionnaires" (RHPQ)were used for data collection. The instruments were given out to three experts in the University of Uyo for face validation. The researcher with the aid of one research assistants who were briefed on the purpose of this study administered the 133 copies of questionnaire to the respondents at Secondary School Education Board. Mean statistics was used to answer the research questions while independent t-test was used to test the null hypotheses at 0.05 level of significance. The findings of the study revealed that the influence of fairness and transparency on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes of male candidates in Abia State, were to a very great influence while that of female candidates were to a great influence. It further revealed that there is significant difference in the mean responses of male and female candidates on the influence

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of fairness and transparency in the development of ethical Artificial Intelligence(AI) systems for recruitment and hiring processes in Abia State. Based on the finding of this study, it was concluded that fairness and transparency are crucial elements in the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State. The results indicated that male candidates perceive the influence to a very great influence whereas female candidates rate it to a great influence. It further concluded that there is significant difference in perceptions underscores the importance of considering gender perspectives in the design and implementation of AI recruitment tools. Based on the conclusion of this study, it was recommended that stakeholders should ensure ethical compliance, foster trust and promote equity among all candidates.

Keywords: *AI, recruitment, hiring, ethics*

INTRODUCTION

The integration of Artificial Intelligence (AI) in recruitment and hiring processes has garnered significant attention due to its potential to enhance efficiency and improve candidate selection (Chambers *et* al., 2020). However, as AI systems become increasingly prevalent in human resource practices, ethical considerations have emerged as pressing concerns. Issues such as algorithmic bias, fairness, transparency and accountability are critical, as AI systems may inadvertently reinforce existing societal prejudices (Binns, 2018). Studies indicate that biased data can lead to discriminatory hiring practices, adversely affecting underrepresented groups (O'Neil, 2016; Holstein *et* al., 2019). The use of AI to screen resumes can perpetuate gender and racial biases if historical data reflects unequal hiring practices (Lundberg and Lee, 2017). The researchers and practitioners have begun advocating for the development of ethical frameworks that guide AI deployment in recruiting (Diakopoulos, 2019). The ethical frameworks emphasize the importance of fairness, inclusivity and the need for explainable AI, ensuring that both candidates and employers understand the mechanisms behind algorithmic decisions (Burrell, 2016). Moreover, organizations are encouraged to regularly auditAI systems to identify and mitigate biases (Sweeney, 2019).

The concept of fairness is increasingly critical in developing ethical AI systems for recruiting and hiring processes, as the tools can greatly influence workforce diversity and equity. Moreso, as organizations increasingly leverage AI for talent acquisition, concerns about bias and discrimination have emerged, highlighting the importance of ensuring that AI models operate fairly (Zou and Schiebinger, 2018). Fairness in hiring involves not only the elimination of biases that disadvantage specific demographic groups but also the promotion of equitable opportunities for all candidates (Banerjee *et* al., 2020). Ethical AI systems must be designed to recognize historical inequities in data, which can perpetuate existing disparities if left unaddressed. Moreover, recruitment algorithms often rely on historical hiring patterns, which may inadvertently

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reinforce systemic biases present in the labor market (Sweeney, 2019). A growing body of research emphasizes the need for transparency and accountability in AI-driven recruitment tools, advocating for frameworks that allow for the ongoing evaluation of fairness throughout the hiring process (Binns, 2018). Furthermore, engaging diverse stakeholders in the design and implementation of ethical AI systems can help identify and mitigate potential biases, aligning AI practices with broader social justice goals (Eubanks, 2018). Inprioritizing fairness, organizations can not only enhance the ethical standards of hiring practices but also foster a more inclusive workforce, ultimately driving innovation and productivity in a competitive marketplace.

Transparency is a critical factor in the development of ethical AI systems for recruiting and hiring processes, as it enhances trust and accountability in decision-making. As organizations increasingly adopt AI-driven tools for talent acquisition, ensuring that these systems operate transparently becomes essential in addressing concerns about bias and fairness (Binns, 2018). Transparency in AI involves elucidating how algorithms make decisions, including the data sources used and the criteria influencing candidate selection (Dastin, 2018). Furthermore, by making the processes clear and accessible, organizations not only facilitate the understanding of AI impacts on hiring outcomes but also empower candidates to challenge potentially discriminatory practices (Hoffmann, 2020). The lack of transparency often leads to a black box phenomenon, where the rationale behind algorithmic decisions remains obscured, potentially perpetuating biases ingrained in training data (O'Neil, 2016). Consequently, calls for regulatory frameworks that promote transparency and ethical accountability in AI hiring processes have gained momentum, encouraging organizations to adhere to standards that prioritize fairness and candidate rights (European Commission, 2020). Moreover, fostering a collaborative environment that involves diverse stakeholders in the design and assessment of AI technologies can further enhance transparency and mitigate risks associated with biased hiring practices (Eubanks, 2018

The discourse on fairness in developing ethical AI systems for recruitment and hiring has garnered substantial attention from various authors and researchers, each contributing unique perspectives on the challenges and best practices in this evolving field.Barocas and Selbst (2016) emphasize that fairness in machine learning, particularly in hiring, must address both procedural and distributive justice. The authors argue that algorithms should not only avoid discrimination against historically marginalized groups but also promote equitable outcomes for all candidates. This dual focus ensures that AI systems contribute positively to diversity in the workplace.Meyer *et* al. (2020) highlight the importance of evaluating AI systems for fairness post-implementation. The authors stress that while pre-deployment bias assessments are critical, continuous monitoring is essential to identify and mitigate biases that may emerge as social contexts change. This calls for adaptive systems that can learn from their environments while maintaining fairness.Dobbe *et* al. (2020) introduce the concept ofprocedural fairness which pertains to the processes involved in

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algorithmic decision-making. The authors propose that AI systems should include mechanisms for candidates to obtain insights into how decisions are made, thereby fostering trust and promoting accountability.

The topic of transparency in developing ethical AI systems for recruiting and hiring processes has received considerable attention from various authors, who articulate the significance of transparency for accountability, trust, and fairness. Here are insights from several influential works:Wright and Kreiss (2016) emphasize that transparency in AI recruitment tools is essential for fostering trust among candidates and stakeholders. The authors argue that organizations should provide clear explanations of how algorithms function, including the data sources and decision-making processes involved. This clarity allows candidates to understand their evaluations, which can help mitigate concerns about biases in hiring decisions.Binns (2018) discusses the importance of interpretability in AI systems, asserting that transparent models enable stakeholders to scrutinize decisions. She advocates for transparency not just as an ethical obligation but as a practical necessity to ensure that AI systems can be appropriately governed and regulated, particularly in high-stakes areas like recruitment. Eubanks (2018) argues for the importance of transparency in automated decision-making systems. She posits that clear disclosure of how algorithms make decisions is vital for holding organizations accountable and for ensuring that fairness is embedded in AI systems. By making the criteria and processes transparent, organizations can build greater accountability into their hiring practices.Miller (2019) discusses the role of transparency in the broader context of explainable AI (XAI). He suggests that transparency should encompass not only the technical workings of AI systems but also the ethical rationale behind decisions. This layered transparency can enhance stakeholder trust by demonstrating a commitment to ethical practices.

Statement of the Problem

The increasing reliance on Artificial Intelligence (AI) systems in recruitment and hiring processes presents significant ethical challenges that, if unaddressed, can lead to discrimination, bias and erosion of trust among candidates. Many organizations implement AI-driven recruitment tools to enhance efficiency and reduce human biases; however, AI systems can inadvertently perpetuate existing inequalities iftrained on biased datasets or lack transparent decision-making processes. Historical data may reflect systemic biases, leading AI systems to favour certain demographic groups over others, thus exacerbating issues related to diversity and inclusion in the workplace. Moreover, the black box nature of many AI algorithms hampers interpretability, making it difficult for stakeholders to understand how hiring decisions are made and contributing to concerns about fairness and accountability. Despite growing awareness of the issues, many organizations lack comprehensive frameworks for developing and implementing ethical AI systems that prioritize fairness, accountability and transparency. Without such frameworks, organizations risk not only legal ramifications associated with discriminatory practices but also

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reputational damage and loss of trust from potential employees. Therefore, it is imperative to establish guidelines and best practices for creating ethical AI systems in recruitment and hiring, ensuring that these technologies contribute positively to workforce diversity while safeguarding the rights and opportunities of all candidates.

Purpose of the Study

The main purpose of this study wasto examine the influence of the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, Nigeria. Specifically, the study seeks:

1. To assess the influence of fairness in the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processesof male and female candidates in Abia State.
2. To examine the influence of transparency in the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes of male and female candidates in Abia State.

Research Questions

1. What is the influence of fairness in the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes of male and female candidates in Abia State.
2. What is the influence of transparency in the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes of male and female candidates in Abia State.

Research Hypotheses

1 There is no significant difference in the mean responses of male and female candidates on the influence of fairness in the development of ethical Artificial Intelligence(AI) systems for recruitment and hiring processes in Abia State.

2 There is no significant difference in the mean responses of male and female candidates on the influence of transparency in the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State.

RESEARCH METHODS

A descriptive survey design was adopted for this study. This study was conducted in Abia State, Nigeria which comprises of seventeen Local Government Area. The population for this study comprised 200 Candidates of Secondary School Teachers who are seeking employment into Abia State Secondary Education Board. The sample size for this study was 133 Candidates. Stratified Random Sampling was used. The researcher developed twenty (20) items research instrument titled: “Recruitment and HiringProcesses Questionnaires” (RHPQ) for data collection.

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The instrument was subjected to face validation. The internal consistency of the instrument was determined using Cronbach Alpha reliability test. The questionnaire was administered on the respondents by the researcher together with one research assistants. Mean statistics was used to answer the two research questions while the independent sample t-Test was used to test null hypotheses at 0.05 level of significant. Real limit was used as decision rule for the research questions as indicatedin the following order: Very Low Influence = 1; Low Influence =2; Great Influence = 3 and Very Great Influence = 4.In order to test the null hypotheses, if the p-value was less or equal to 0.05 ($p \leq 0.05$), the null hypothesis was rejected. Notwithstanding, where p-value was greater than 0.05 ($p > 0.05$), then the null hypothesis was retained.

RESULTS

Research Question 1

What is the influence of fairness on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes of male and female candidates in Abia State.

Table 1: Mean Responses of Candidates on the influence of fairness on the Development of Ethical Artificial Intelligence (AI) Systems for Recruitment and Hiring Processes of Male and Female Candidates. **n = 127**

S/N	Items	N	Mean	Remarks
1	Ability to recognize bias in AI recruitment systems	M -70 F –57	3.66 3.63	**VGI** **VGI**
2	Ability to contribute to ethical AI discussions	M -70 F –57	3.73 2.54	**VGI** **GI**
3	Ability to evaluate the fairness of AI tools	M -70 F –57	3.79 3.47	**VGI** **GI**
4	Ability to identify ethical dilemmas in AI recruitment	M -70 F –57	3.74 3.49	**VGI** **GI**
5	Ability to provide feedback on AI systems	M -70 F –57	3.66 2.68	**VGI** **GI**
6	Ability to differentiate ethical from unethical AI practices	M -70 F –57	3.83 3.49	**VGI** **GI**
7	Ability to recognize potential job discrimination	M -70 F –57	3.79 3.67	**VGI** **VGI**
8	Ability to stay informed about AI ethics	M -70 F –57	3.70 2.63	**VGI** **GI**
9	Ability to engage in discussions about AI ethics	M -70 F - 57	3.80 3.42	**VGI** **GI**
10	Ability to assess the transparency of AI systems	M -70 F –57	3.70 3.58	**VGI** **VGI**
	Cluster Mean	M -70 F - 57	**3.74** **3.26**	**VGI** **GI**

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Data presented in Table 1 showed that all the 10 items on male candidates had mean values that ranged from 3.66 to 3.83 which showed that the 10 items on the influence of fairness on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a very great influence. Furthermore, the findings revealed that 3 out of 10 items on female candidates had mean values that ranged from 3.58 to 3.67 which showed that the 3 items on the influence of fairness on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a very great influence. The remaining 7 items on female candidates had mean values that ranged from 2.54 to 3.49 which showed that the 7 items on the influence of fairness on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a great influence.The cluster summary indicated a mean value of 3.74 for male candidates which showed that generally, the influence of fairness on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a very great influence. The cluster summary further indicated a mean value of 3.26 for female candidates which showed that generally, the influence of fairness on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a great influence.

Research Question 2

What is the influence of transparency on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes of male and female candidates in Abia State.

Table 2: Mean Responses of Candidates on the influence of transparency on the Developmentof Ethical Artificial Intelligence (AI) Systems for Recruitment and Hiring Processes of Male and Female Candidates. n = 127

S/N	Items	N	Mean	Remarks
1	Ability to understand how AI recruitment tools work	M -70 F –57	3.76 2.53	**VGI** **VGI**
2	Ability to suggest improvements for AI transparency	M -70 F –57	3.73 3.58	**VGI** **VGI**
3	Ability to collaborate on transparency initiatives	M -70 F –57	3.60 3.53	**VGI** **VGI**
4	Ability to discuss transparency with recruiters	M -70 F –57	3.81 3.56	**VGI** **VGI**
5	Ability to evaluate AI system transparency	M -70 F –57	3.86 3.51	**VGI** **VGI**

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6	Ability to articulate the importance of transparency in AI	M -70 F –57	3.79 3.65	**VGI** **VGI**
7	Ability to advocate for clearer AI policies	M -70 F –57	3.74 3.54	**VGI** **VGI**
8	Ability to understand bias in AI data	M -70 F –57	3.74 3.51	**VGI** **VGI**
9	Ability to communicate concerns about AI	M -70 F - 57	3.69 3.51	**VGI** **VGI**
10	Ability to stay updated on AI ethics	M -70 F –57	3.84 3.65	**VGI** **VGI**
	Cluster Mean	M -70 F - 57	**3.76** **3.46**	**VGI** **GI**

Data presented in Table 4 showed that all the 10 items on male candidates had mean values that ranged from 3.60 to 3.86 which showed that the 10 items on the influence of transparency on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a very great influence. Furthermore, the findings revealed that all the 10 items on female candidates had mean values that ranged from 2.53 to 3.65 which showed that all the items on the influence of transparency on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a very great influence. The cluster summary indicated a mean value of 3.76 for male candidates which showed that generally, the influence of transparency on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a very great influence. The cluster summary further indicated a mean value of 3.46 for female candidates which showed that generally, the influence of transparency on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a great influence.

Research Hypotheses 1

There is no significant difference in the mean responses of male and female candidates on the influence of fairness in the development of ethical Artificial Intelligence(AI) systems for recruitment and hiring processes in Abia State.

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Table 3: t-test analysis of the mean responses of Male and Female Candidates on the influence of fairness on the Developmentof Ethical Artificial Intelligence (AI) Systems for Recruitment and Hiring Processes. n = 127

S/N	Items	Groups	Mean	t-values	p-values	Decision
1	Ability to recognize bias in AI recruitment systems	M -70 F –57	3.66 3.63	3.30 3.30	0.00 0.00	S S
2	Ability to contribute to ethical AI discussions	M -70 F –57	3.73 2.54	13.13 12.81	0.00 0.00	S S
3	Ability to evaluate the fairness of AI tools	M -70 F –57	3.79 3.47	3.84 3.76	0.00 0.00	S S
4	Ability to identify ethical dilemmas in AI recruitment	M -70 F –57	3.74 3.49	3.00 2.96	0.00 0.00	S S
5	Ability to provide feedback on AI systems	M -70 F –57	3.66 2.68	7.39 7.44	0.00 0.00	S S
6	Ability to differentiate ethical from unethical AI practices	M -70 F –57	3.83 3.49	4.13 3.40	0.00 0.00	S S
7	Ability to recognize potential job discrimination	M -70 F –57	3.79 3.67	3.51 3.49	0.00 0.00	S S
8	Ability to stay informed about AI ethics	M -70 F –57	3.70 2.63	11.17 10.85	0.00 0.00	S S
9	Ability to engage in discussions about AI ethics	M -70 F - 57	3.80 3.42	4.74 4.64	0.00 0.00	S S
10	Ability to assess the transparency of AI systems	M -70 F –57	3.70 3.58	4.42 4.41	0.00 0.00	S S

The t-test analysis presented in Table 3 revealed that the t-value ranging from 2.96 to 13.13 and the p-value of .00 is less than .05 level of significance, P≤ 0.05 levels of significance and at 125 degree of freedom (df). This showed that, there is significant difference in the mean responses of male and female candidates on the influence of fairness in the development of ethical Artificial Intelligence(AI) systems for recruitment and hiring processes in Abia State. Therefore, the null hypothesis of no significant difference is rejected.

Research Hypotheses 2

There is no significant difference in the mean responses of male and female candidates on the influence of transparency in the development of ethical Artificial Intelligence(AI) systems for recruitment and hiring processes in Abia State.

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Table 4: t-test analysis of the mean responses of Male and Female Candidates on the influence of transparency on the Developmentof Ethical Artificial Intelligence (AI) Systems for Recruitment and Hiring Processes. n = 127

S/N	Items	Groups	Mean	t-values	p-values	Decision
1	Ability to understand how AI recruitment tools work	M -70 F –57	3.76 2.53	14.30 13.99	0.00 0.00	S S
2	Ability to suggest improvements for AI transparency	M -70 F –57	3.73 3.58	11.78 11.76	0.00 0.00	S S
3	Ability to collaborate on transparency initiatives	M -70 F –57	3.60 3.53	3.83 3.83	0.00 0.00	S S
4	Ability to discuss transparency with recruiters	M -70 F –57	3.81 3.56	3.07 2.98	0.00 0.00	S S
5	Ability to evaluate AI system transparency	M -70 F –57	3.86 3.51	4.57 4.41	0.00 0.00	S S
6	Ability to articulate the importance of transparency in AI	M -70 F –57	3.79 3.65	6.72 6.69	0.00 0.00	S S
7	Ability to advocate for clearer AI policies	M -70 F –57	3.74 3.54	14.93 14.72	0.00 0.00	S S
8	Ability to understand bias in AI data	M -70 F –57	3.74 3.51	2.79 2.75	0.01 0.01	S S
9	Ability to communicate concerns about AI	M -70 F - 57	3.69 3.51	3.05 3.03	0.00 0.00	S S
10	Ability to stay updated on AI ethics	M -70 F –57	3.84 3.65	4.07 4.07	0.00 0.00	S S

The t-test analysis presented in Table 4 revealed that the t-value ranging from 2.98 to 14.93 and the p-value ranging from .00 to .01 is less than .05 level of significance, P≤ 0.05 levels of significance and at 125 degree of freedom (df). This showed that, there is significant difference in the mean responses of male and female candidates on the influence of transparency in the development of ethical Artificial Intelligence(AI) systems for recruitment and hiring processes in Abia State. Therefore, the null hypothesis of no significant difference is rejected.

DISCUSSION OF FINDINGS

The findings of this study revealed thatthe influence of fairness on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes of male candidates in Abia State, were to a very great influence while that of female candidates were to a great influence. It further revealed that there is significant difference in the mean responses of male and female candidates on the influence of fairness in the development of ethical Artificial Intelligence(AI)

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systems for recruitment and hiring processes in Abia State. The findings are in agreement with the finding of Barocas and Selbst (2016) who emphasize that fairness in machine learning, particularly in hiring, must address both procedural and distributive justice. The authors argue that algorithms should not only avoid discrimination against historically marginalized groups but also promote equitable outcomes for all candidates. This dual focus ensures that AI systems contribute positively to diversity in the workplace.

The findings of this study also revealed that the influence of transparency on the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State, were to a very great influence while that of female candidates were to a great influence. It further revealed that there is significant difference in the mean responses of male and female candidates on the influence of transparency in the development of ethical Artificial Intelligence(AI) systems for recruitment and hiring processes in Abia State. The finding is in consonant with the finding of Wright and Kreiss (2016) emphasize that transparency in AI recruitment tools is essential for fostering trust among candidates and stakeholders. The authors argue that organizations should provide clear explanations of how algorithms function, including the data sources and decision-making processes involved. This clarity allows candidates to understand their evaluations, which can help mitigate concerns about biases in hiring decisions.

Conclusion

On the basis of the findings of this study, it is concluded that fairness and transparency are crucial elements in the development of ethical Artificial Intelligence (AI) systems for recruitment and hiring processes in Abia State. The results indicated that male candidates perceive the influence to a very great influence whereas female candidates rate it to a great influence. It further concluded that there is significant difference in perceptions underscores the importance of considering gender perspectives in the design and implementation of AI recruitment tools. Based on the conclusion of this study, it was recommended that stakeholders should ensure ethical compliance, foster trust and promote equity among all candidates.

Recommendation

1. AI developers should actively incorporate gender perspectives in the design and implementation of recruitment systems to ensure that both male and female candidates feel fairly represented and valued.
2. Organizations should establish and adhere to clear ethical guidelines regarding fairness and transparency in their AI recruitment processes.
3. Organizations must provide ongoing training for HR personnel and AI developers on the importance of ethical considerations in AI recruitment.
4. Companies should communicate openly about how AI systems are used in recruitment, including the criteria and decision-making processes.

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REFERENCES

Barocas, S. and Selbst, A. D. (2016). Big Data's Disparate Impact. *California Law Review,* 104(3), 671-732.

Banerjee, A., Schubert, I. and Ziegler, G. (2020). Fairness in AI: A Review of the Recruitment Process. *Journal of Applied AI Research*, 2(1), 56-70.

Binns, R. (2018). Fairness in Machine Learning: Lessons from Political Philosophy. Proceedings of the 2018 Conference on Fairness, Accountability, and Transparency, 149-158.

Binns, R. and Shadbolt, N**.** (2020). Azimuth: A Tool for Fairness in Machine Learning. *AI and Society,* 35(4), 905-916.

Burrell, J. (2016). How the machine 'thinks': Understanding opacity in machine learning algorithms. *Big Data & Society*, 3(1), 21-35.

Chambers, J., R. D. G. Robinson and D. W. Schaffer. (2020). AI in Recruitment: A Game Changer or a Disaster? *The International Journal of Human Resource Management*, 31(1), 23-45.

Dastin, J. (2018). Amazon Scraps Secret AI Recruiting Tool That Showed Bias Against Women. Reuters.

Diakopoulos, N. (2019). Accountability in Algorithmic Decision Making. *Communications of the ACM*, 62(3), 56-62.

Dobbe, R., van der Hooft, A. and van der Meer, J**.** (2020). Procedural Fairness in Algorithmic Decision-Making: A New Approach to Address Algorithm Bias. *Artificial Intelligence*, (6), 103-120.

Eubanks, V**.** (2018). Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor. St. Martin's Press.

Hoffmann, A. L. (2020). Where Fairness Fails: Data Observability and the problem of the Black Box. *AI Society*, 35(1), 197-206.

Holstein, K., Wortman, J., Daumé III, H. and Dudik, M. (2019). Improving Fairness in Machine Learning Systems: What Do Industry Practitioners Need? Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19), Article 600.

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Lipton, Z. C. (2016). The Mythos of Model Interpretability. *Communications of the ACM*, 59(10), 36-43.

Lundberg, S. M. and Lee, S. I. (2017). A unified approach to interpreting model predictions. Advances in Neural Information Processing Systems,30(1),4765-4774.

Leicht-Deobald, U., et al. (2019). Artificial Intelligence in Human Resource Management: A Systematic Review. *Frontiers in Sociology*, 4(5), 34-49.

Meyer, J., Zoller, S. and Kuhlmann, M**.** (2020). AI in Recruitment: Balancing Fairness, Accuracy, and User Satisfaction. *Journal of Business Research*,120, 244-255.

Miller, T. (2019). Explanation in artificial intelligence: insights from the Social Sciences. *Artificial Intelligence*,26(7), 1-38.

Sweeney, L**.** (2019). Discrimination in Online Ad Delivery. *Communications of the ACM*, 62(2), 44-54.

Wright, A. and Kreiss, D. (2016). The politics of the algorithm: The role of algorithms in the recruitment process.Journal of Business Ethics,162(1), 53-66.

Zou, J. And Schiebinger, L. (2018). AI can be sexist and racist it's time to make it fair. *Nature,* 559(7714), 324-326.

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