

A Review Paper: Will Artificial Intelligence (AI) Replace the Human Recruiter?

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Abstract

AI's influence on the process of recruitment is continually showing upward growth. From screening and selecting the best-fit candidates using algorithms, it is now assisting people with analytics to develop human resources and even designing models to predict the salary of the newcomer. Despite this ever expanding and all-encompassing role, it is being criticised for bringing forth algorithm related biases, which it is supposed to reduce/ eliminate. AI's advanced offering ChatGPT also threatens to jeopardise the existence of the recruiter. However, the human element (particularly, the recruiter) is needed to monitor the entire algorithm process to eliminate the undesired biases and to prevent new ones. The intuitive nuance and critical thinking ability of the recruiter cannot be dispensed with. The recruiter also needs to be compassionate and only a human recruiter can fit into this bill. A human recruiter is also needed to recognise, appreciate and value a diversified workforce, thereby looking beyond the mere binary focus of machines. A balance between subjective (human) and objective (AI) ensuring "positive-sum automation" will always be needed for business decision-making, including the process of recruitment.

Keywords: Artificial Intelligence (AI), recruitment, recruiter.

Will Artificial Intelligence (AI) Replace the Human Recruiter?

AI's expanding presence in the recruitment

AI (Artificial Intelligence) has taken the world of recruitment by storm. According to a Gartner survey (2019, January 21), AI grew by 270 percent in the last four years to reach 37 percent of all enterprises. The job offer ratio of interviewed candidates increased by 82 percent in L'Oréal with the use of "SeedLink-algorithms" in terms of efficiency and relevance (Charlier & Kloppenburg, 2017, p.6). Covid-19 has accentuated the use of technology, including AI and machine learning in various human resource (HR) processes including recruitment. (Chattopadhyay, 2020, p. 66). Black and Van Esch (2020) call it "Digital recruitment 3.0" due to its centrality in the recruitment process for it has moved from the sidelines to a fulcrum position. (p.215).

AI's impact on the recruitment process

AI impacts recruitment in three main ways- screening, eliminating human bias and assisting in the choice of the best-fitting candidate. (Fraij & László, 2021, p. 108). Employing an evidence-driven mechanism facilitated by AI, human behaviour and social dynamics are combined with business information to carry

out people analytics not only to identify employees but also to develop them. (Giermindl, et. al.,2022, p.410; Dijkkamp, 2019). Even an effective salary forecast model can be developed using AI tools by utilizing the applicant's resume and industry trends. (Gong et al., 2022, p.17). From this brief survey, we can see that a number of core recruiter functions have been taken over by AI and it has almost become the new recruiter.

Not a completely rosy picture

However, AI has its share of sceptics and detractors. Around 70 percent of respondents in the research of Horodyski (2023, p. 1) feel that AI lacks nuance in terms of reaching a human decision. Similarly, the general perception of recruiters towards AI is negative though the same recruiters feel that AI is ahead of the human element in terms of efficiency and performance. (Will, et. al.,2023, p.1095). One strong argument cited for AI intervention in recruitment is to reduce our biases and prejudices. The human recruitment process brings about more errors and is more biased toward gender than algorithm-based recruitment. (Fumagalli et. al.,2022, p.11). There is a tendency to remove humans for AI automation to reduce human bias. (Benbya et al., 2021, p.289). AI tools use algorithms in every stage of the decision making process and decision – making in the recruitment part of the human resource function will continue to use algorithms as a process of growth because of rapid digitalization. (Köchling & Wehner, 2020, p.795). On the other hand, Bogen (2019) cites the example where Facebook reached 85 percent women for cashier jobs and 75 percent Black when it came to jobs with taxi companies. Such biases could be the result of missing information in the training data sets or errors in our choice of variables. (Soleimani et.al.,2021, p.5097). Proper use of AI requires what is termed as “Human – Centric Artificial Intelligence” (Peña et al., 2023, p.16) and it includes a concern to ensure a fair and clear process which is subjected to critical questioning. (p.1).

Advancement of AI- Scarier picture?

ChatGPT with AI powerfully behind it has created waves in the world of technology. (Wang et al., 2023, p.576). Writing the job description is being taken up by ChatGPT from the recruiter. (Travers, 2023). Based on a Twitter user's prompt, Das (2023) apprehends that ChatGPT will take up 20 jobs and it includes the job of a recruiter. Assuaging the fears, it is predicted that the focus on human essence, for example, compassion will not allow ChatGPT to eliminate the HR professional and it will remain his/ her helping hand. (Douglas, 2023).

Where will we reach?

Chen (2022, p.136) identifies three categories of artificial intelligence –narrow (performing a specific task), general (performing a task cognitively similar to a human) and super (performing a task superior to a human mind). As of now, we are at the Artificial Narrow Intelligence stage. A logical corollary would be to question what would happen when the next two stages are reached. Will the human recruiter be replaced by a machine recruiter who happens to have better intelligence than a human?

Is the final verdict out?

Should AI be demonized or gleefully accepted? Will it become fully autonomous? Neither does AI hiring intrinsically violate the tenets of human rights nor does it completely ignore ethics. (Hunkenschroer & Kriebitz, 2022, p.213). Lebovitz et al. (2023) warn that the “ground truth”, which they define as the input

algorithm considered to be true as it is constructed objectively based on empirical truth, has to be identified and validated by the human element or else the AI tool will fall flat. (pp. 28-30). Further, employers need to examine the entire sequential process from the starting line to the finishing line to eliminate hidden or developing biases. (Bogen, 2019).

Charlier and Kloppenburg (2017, p.7) argue for a strong cultural orientation in an organization, thereby implying human need and intervention even after accepting the inherent and widely recognised benefits of AI in recruitment. Not only is the human team functioning considered the most important criterion for judging the efficiency and efficacy of AI tools, but there is also the need to ensure “positive-sum automation”, a concept where humans and machines are integral and inseparable. (Armstrong & Shah, 2023, p. 42). Well-known companies, as per initial reports, need a combination of human, organizational and physical resources to create a market differentiator as far as AI capability is concerned. (Horodyski, 2023, p.1). Welcoming the role of AI in business decision-making, Banerjee (2020, p.358) suggests a combination of subjective (human) and objective (AI) pillars of decision-making. Human autonomy is endangered and reasoning ability side-lined by AI (Giermindl et al., 2021, pp. 425-26) yet humans need to use their ability to judge and sharpen their critical faculty because their skills cannot be replaced by any kind of analytics or technological tool. (p.429). AI works on the principle of binary logic. (Garg, et.al.,2021, p.34). However, human resource cannot be reduced to two shades. Should there be no space for the shades of grey? There will always be the possibility of infinite combinations. To recognise, appreciate and value this diversity, we need the human touch or else the gap created by such a binarization can become a wide chasm in no time

References

1. Armstrong, B., & Shah, J. (2023, March/April). *Harvard Business Review*, 101(2), 37-42.
2. Banerjee, R. P. (2020). *Art and science of management in the Digital Era: Indian spiritual wisdom for managing sustainable global enterprise*. Sage Publications.
3. Benbya, H., Pachidi, S., & Jarvenpaa, S. (2021) "Special Issue Editorial: Artificial Intelligence in Organizations: Implications for Information Systems Research," *Journal of the Association for Information Systems*, 22(2), 281-302. DOI: 10.17705/1jais.00662
4. Black, J. S., & Van Esch, P. (2020). AI-enabled recruiting: What is it and how should a manager use it? *Business Horizons*, 63(2), 215-226. <https://doi.org/10.1016/j.bushor.2019.12.001>
5. Bogen, M. (2019, May 6). *All the ways hiring algorithms can introduce bias*. Harvard Business Review. <https://hbr.org/2019/05/all-the-ways-hiring-algorithms-can-introduce-bias>
6. Charlier, R., & Kloppenburg, S. (2017). *Artificial Intelligence in HR: a No-brainer*. www.pwc.nl. Retrieved June 26, 2023, from <http://www.pwc.nl/nl/assets/documents/artificial-intelligence-in-hr-a-no-brainer.pdf>
7. Chattopadhyay, P. (2020). A study on various applications of artificial intelligence (AI) in the Field of human resource management (HRM). *International Journal of Advanced Research in Science, Communication and Technology*, 63-67. <https://doi.org/10.48175/605>
8. Chen, Z. (2022). Collaboration among recruiters and artificial intelligence: Removing human prejudices in employment. *Cognition, Technology & Work*, 25(1), 135-149. <https://doi.org/10.1007/s10111-022-00716-0>

9. Das, M. R. (2023, March 17). AI taking jobs: From recruiters to tutors, ChatGPT's GPT-4 version says it will replace these 20 jobs. *Firstpost*. <https://www.firstpost.com/world/chatgpts-gpt-4-version-says-it-will-replace-these-20-jobs-12307872.html>
10. Dijkkamp, J. (2019). *The recruiter of the future, a qualitative study in AI supported recruitment process* (Master's thesis, University of Twente).
11. Douglas, E. (2023, February 24). Will ChatGPT remove the 'human' in human resources? <https://www.hcamag.com/ca/specialization/hr-technology/will-chatgpt-remove-the-human-in-human-resources/437504>. <https://www.hcamag.com/ca/specialization/hr-technology/will-chatgpt-remove-the-human-in-human-resources/437504>
12. Fraij, J., & László, V. (2021). Literature review: Artificial Intelligence Impact on the Recruitment Process: *International Journal of Engineering and Management Sciences*, 6(1), 108-119. <https://doi.org/10.21791/ijems.2021.1.10>
13. Fumagalli, E., Rezaei, S., & Salomons, A. (2022). OK computer: Worker perceptions of algorithmic recruitment. *Research Policy*, 51(2), 104420,1-13.
14. Garg, A., Gaur, S., & Sharma, P. (2021). A review paper: Role of artificial intelligence in recruitment process. *Anwesh*, 6(1), 33-37.
15. Gartner Inc. (2019, January 21). *Gartner Survey Shows 37 Percent of Organizations Have Implemented AI in Some Form [Press release]*. (2019). Gartner. <https://www.gartner.com/en/newsroom/press-releases/2019-01-21-gartner-survey-shows37-percent-of-organizations-have>
16. Giermindl, L. M., Strich, F., Christ, O., Leicht-Deobald, U., & Redzepi, A. (2021). The dark sides of people analytics: Reviewing the perils for organisations and employees. *European Journal of Information Systems*, 31(3), 410-435. <https://doi.org/10.1080/0960085x.2021.1927213>
17. Gong, Y., Zhao, M., Wang, Q., & Lv, Z. (2022). Design and interactive performance of human resource management system based on artificial intelligence. *PLOS ONE*, 17(1), e0262398,1-20. <https://doi.org/10.1371/journal.pone.0262398>
18. Horodyski, P. (2023). Recruiter's perception of artificial intelligence (ai)-based tools in recruitment. *Computers in Human Behavior Reports*, 10, 100298,1-10. <https://doi.org/10.1016/j.chbr.2023.100298>
19. Hunkenschroer, A. L., & Kriebitz, A. (2022). Is AI recruiting (un)ethical? A human rights perspective on the use of AI for hiring. *AI and Ethics*, 3(1), 199-213. <https://doi.org/10.1007/s43681-022-00166-4>
20. Köchling, A., & Wehner, M. C. (2020). Discriminated by an algorithm: A systematic review of discrimination and fairness by algorithmic decision-making in the context of HR recruitment and HR development. *Business Research*, 13(3), 795-848. <https://doi.org/10.1007/s40685-020-00134-w>
21. Lebovitz, S., Lifshitz-Assaf, H., & Levina, N. (2023). The no. 1 question to ask when evaluating AI tools. *MIT Sloan Management Review*, 64(3), 27-30.
22. Peña, A., Serna, I., Morales, A., Fierrez, J., Ortega, A., Herrarte, A., Alcantara, M., & Ortega-Garcia, J. (2023). Human-centric multimodal machine learning: Recent advances and Testbed on AI-based recruitment. *SN Computer Science*, 4(5). <https://doi.org/10.1007/s42979-023-01733-0>
23. Soleimani, M., Intezari, A., Taskin, N., & Pauleen, D. (2021). *Hawaii International Conference on system sciences 2021*,5091-99. https://aisel.aisnet.org/hicss-54/ks/big_data_analytics/3/

24. Travers, K. (2023, April 17). How ChatGPT is changing the job hiring process, from the HR department to coders. *CNBC*. <https://www.cnbc.com/2023/04/08/chatgpt-is-being-used-for-coding-and-to-write-job-descriptions.html>
25. Wang, F., Miao, Q., Li, X., Wang, X., & Lin, Y. (2023). What does ChatGPT say: The DAO from algorithmic intelligence to linguistic intelligence. *IEEE/CAA Journal of Automatica Sinica*, 10(3), 575-579. <https://doi.org/10.1109/jas.2023.123486>
26. Will, P., Krpan, D., & Lordan, G. (2023). People versus machines: introducing the HIRE framework. *Artificial Intelligence Review*, 56(2), 1071-1100.