Review of: "AI Adoption and Firm Demand for Workers and Skills: Insights from Online Job Postings"

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Potential competing interests: No potential competing interests to declare.

The paper offers a well-structured and detailed analysis of the influence of AI adoption on labor demand and skill requirements in Australian companies, contributing original and significant findings. Below is a structured review with suggestions for improvement, as well as an assessment of strengths and areas to clarify or expand.

Strengths

- The paper is well-organized, with clearly delineated sections that guide the reader through the research. The division of findings into thematic sub-sections makes the text easy to follow and ensures clarity.
- The study's focus on comparing companies that adopt AI versus those that do not is a valuable empirical contribution. It demonstrates that AI adoption is linked not only to increased demand for workers but also to an expansion of the skills required, suggesting that AI may complement human labor rather than replace it. The analysis of skills and job roles across different industries offers a realistic look at how job requirements evolve within companies adopting AI.
- The practical implications are clearly outlined, offering sound policy recommendations for both public and corporate sectors. The emphasis on investing in AI training and education is particularly important in the current labor market.

Areas for Improvement

- Use of Job Ads as a Proxy.
  While the use of job advertisements as a measure of AI adoption provides useful insights, it could be strengthened by incorporating additional data sources.
- International Comparisons and Contextualization.
  The study adapts U.S.-based metrics for AI exposure to the Australian context. While the justification for this adaptation is valid, more attention to the specificities of the Australian labor market would make the results more robust and generalizable. Additionally, comparing these findings with those from other developed countries could offer valuable insights into the global applicability of the findings.
- Clarifying the Nature of Role Transformation.
  The paper discusses roles "exposed" to AI but does not always clarify whether these roles are being transformed or merely enriched in firms that adopt AI. A more detailed analysis of how different roles are evolving in terms of AI skills would add depth to the discussion.
- Exploring Alternative Explanations.

While the paper offers a valid interpretation of AI as a tool for retraining, it could explore alternative explanations, such as the risk of job displacement or the creation of entirely new job profiles.

- Analysis of Industry and Regional Differences.
  Although the paper mentions disparities between industries and regions, a more detailed analysis of how AI adoption varies across specific industries and between rural and urban regions would provide a clearer picture.
- Precision in Terminology.
  It would be beneficial to more precisely define “roles exposed to AI” at the beginning of the paper, as this concept is central to the discussion of the findings.

The limitations section is well articulated. Additionally, future research could focus on the challenges and benefits associated with adopting generative AI tools, a rapidly emerging area that could significantly impact labor demand and skills.

The conclusion is well-worded. However, it could be expanded to include brief insights into the implications for different stakeholders.

Overall, the paper makes an important contribution to the understanding of AI’s impact on the labor market, suggesting that AI adoption can stimulate both job growth and the development of new skills.
By addressing the methodological limitations, expanding the analysis of role transformation, and incorporating comparative analysis across sectors and regions, the paper could be made even more robust.