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Proceedings of the International Conference on Research in Human Resource Management
Vol. 2, Issue. 1, 2025, pp. 29-44
DOI: https://doi.org/10.33422/icrhrm.v2i1.1123

ISSN: 3030-0517online

Information Systems and Human Resources Management: Applying AI in Recruitment

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Abstract

The aim of this paper is to examine how Human Resources (HR) and the recruitment process in particular are revolutionalised with the adoption of Artificial Intelligence (AI), focusing on the candidate selection process and interviews. The paper offers a literature review of AI application in HR and recruitment and provides an analysis of how AI can be leveraged in interviews. The paper also presents a review of the current state-of-the-art AI tools for recruitment and candidate selection. In this direction, it describes a proposed model of an AI HR Assistant System, for candidate evaluation in interviews. The model suggests using AI in candidate emotion analysis, based on a combination of face, voice, motion and pulse analysis. The model includes a study of the ethics of AI adoption in interviews, highlighting the issues to be considered for the fair and responsible use of the technology. Finally, the paper discusses the impact of AI in HR recruitment and candidate selection, analysing the study implications for research and practice, illustrating the opportunities and challenges of integrating AI in HR and interviews and offering insights and guidelines for interested parties in academia and industry.

Keywords: Artificial Intelligence, Human Resources Management, Interviews, Emotion Analysis, Information Systems

1. Introduction

Information Systems and AI have been increasingly used in Human Resources Management and recruitment, with organisations incorporating Applicant Tracking Systems (ATS) and other AI-based tools into their hiring processes. According to World Economic Forum (2025) more than 90% of employers already use some form of automated system to filter or rank job applications and approximately 88% of companies already use AI for initial candidate screening. AI increases the efficiency of recruitment processes while mitigating candidate selection problems such as the bias of recruiters in human interviews or limitations in

candidate assessment, enabling more accurate results and leading to improved decision-making,

The role and the adoption of AI in recruitment has recently received attention from both academia and industry. Studies have highlighted the potential of AI in recruitment in four main phases, sourcing, selection, screening and interviewing. AI has been studied for automating tasks such as job description generation (Walker and Larson, 2025), candidate sourcing and talent discovery, resume screening and parsing, candidate matching, candidate assessment, interview scheduling, interview automation, onboarding (Nyathani, 2022; Chen 2023). AI facilitates recruitment and offers several benefits enhancing recruitment experience and quality (Balcioğlu and Artar, 2024), reducing cost, time and transaction load (Chen, 2023) and improving accuracy, efficiency and decision making (Al-Alawi et al., 2021). Commercial AI systems such as ATS or conversational AI and chatbots, have been launched supporting recruitment across a wide range of tasks, e.g. candidate matching, interviews and assessment, job description creation, and workforce management and optimisation.

At the same time, AI use raises several concerns, largely associated with the bias of applied algorithms and ethical issues such as fairness, discrimination and the risk of dehumanisation. Algorithmic bias can lead to discrimination on gender, race, skin color and personality (Chen, 2023). Kekez et al. (2025) found a conceptual unclarity of bias and diversity in the context of AI use in HRM, with most research examining bias and discrimination on gender and race/color. Despite research progress on mitigating algorithmic bias, hiring algorithms still suffer from bias problems (Albaroudi et al., 2024).

A major application of AI in recruitment is AI-enabled interviews. Research and industry are largely oriented in asynchronous video interviews (AVIs) assessing candidates from video, audio and text responses. Anthropomorphic AI interviewers and emotion analysis, mostly facial and vocal, appear as valuable tools, mainly assessing personality traits or technical skills. However, there are still a plethora of issues, including evaluation accuracy, transparency, explainability, soft skills assessment, emotion analysis modalities, bias mitigation and candidates perceptions that call for research (Mirowska and Arsenyan, 2025; Albaroudi et al., 2024).

In an attempt towards addressing these gaps, this paper proposes a model of an AI Interview Assistant using multimodal, context-aware emotion analysis, based on candidate face, voice, motion and pulse. The model extends research and commercial AI interview tools, describing a holistic and dynamic candidate assessment, during interviews, reducing bias and increasing evaluation accuracy and fairness. The study also explores candidates perceptions about AI-enabled interviews.

The structure of the paper is as follows. After summarising the status of AI in recruitment, the next section proceeds with the methodology followed for narrowing down our focus to the use of AI in interviews. A literature review in AI in interviews was conducted followed by a review of the state-of-the-art AI tools for interviews. This was the basis for the proposed AI Interview Assistant model. The model is described and compared to the current tools from research and industry. An exploratory qualitative study was also conducted as a preliminary evaluation of perceptions about the use of the proposed AI-enabled Interview Assistant. The

results are presented next. The section that follows offers a discussion of the impact of AI in job interviews, illustrating the opportunities and challenges of integrating AI in HR and recruitment, analysing theoretical and practical implications and providing insights and guidelines for academia and industry. The paper ends with our conclusions.

2. Methods

After consideration of topics related to AI in recruitment, we proceed to narrow down our focus to the use of AI in interviews. Our approach was two-fold, looking at the topic from both a research and a practical perspective. A literature review of academic peer-reviewed research in AI in interviews was conducted followed by a review of the state-of-the-art AI tools for interviews. This was the basis for the proposed conceptual model of AI Interview Assistant. We then proceeded to an exploratory qualitative study to investigate perceptions about its potential application.

For our literature review of research on AI in interviews, first a search in Scopus was conducted for AI in interviews using the query "TITLE-ABS-KEY (artificial AND intelligence AND interviews)" resulting in 6621 documents. As most results were, surprisingly, not completely relevant with job interviews, it was decided to refine our search to AI in job interviews using the query "TITLE-ABS-KEY (ai AND job AND interviews)" which reduced the results into 361 documents. A further analysis was made, examining all documents one by one to check their relevance for inclusion in the review. Documents were rejected if they were not explicitly related to the use of AI during interviews, referring specifically to a proposed AI interview system. This resulted in a subset of 40 documents.

We also conducted a review of the current commercial AI interview tools, in order to have a cumulative view of the state-of-art of the topic. As expected, our initial search for AI interview tools revealed a large number of diverse commercial products, varying in scope and functionality. Then, we proceeded to narrow down our search to AI tools that actually support conducting job interviews in a recruitment context. The search process was based on queries for "AI interview tools", focusing on sources from industry technical reports, market analyses and company websites (e.g. Gartner, 2025), resulting in 8 tools.

This hybrid review served as the basis for introducing a conceptual AI interview model. It should be noted that the review is comprehensive rather than systematic, structured on certain criteria to facilitate our comparative analysis. The model aims to build on the review results and address challenges proposing an improved AI-assisted interview process with multimodal and contextualised emotion analysis.

A preliminary exploratory qualitative study was also conducted as a first step of evaluation of our model. The model was presented to a group of 11 students and the emotion analysis functions were described, with an emphasis on the use of face expressions, body posture and motion, voice and heart rate as input for the evaluation. Respondents were asked to participate in short interviews regarding their views of AI enabled interviews with multimodal emotion analysis and were requested to respond to open-ended questions such as *"What is your opinion about being interviewed by an AI Interview system like this?"* and *"Assume you had to be interviewed by such a system, how would you feel, would you like it*

or not and why?". All interviews were conducted in person, audio-recorded with informed consent via smartphone and manually transcribed verbatim or with minor editing for clarity.

3. Results

Our literature review showed a growing research interest of AI in interviews. Recent studies focus on using AI for detecting candidate deception in interviews. Suen and Hung (2024, 2025) study the influence of AI in impression management of applicants, assisting employers in detecting the deceptive behavior of applicants during video interviews. In a similar vein, Canagasuriam and Lukasic (2025) view the use of AI in interviews from the interviewee perspective and examine their cheating with ChatGPT in AVIs.

Other researchers study AI as interviewers. Clavel et al. (2024) provide an empirical study of a virtual AI job interviewer showing intimacy in interview training and its effect on applicants experience and perceptions. Min et al. (2024) examine the role of avatar characteristics in shaping perceptions of interactional justice in AI-based job interviews. Balcioğlu and Artar (2024) investigate candidate attitudes toward AI-supported chatbots in interviews, showing that they offer a more advantageous experience and enhance the recruitment process. Similarly, Navya et al. (2024) present an AI-based interview evaluator with a chatbot and Boudjani et al. (2023) propose an interactive AI chatbot for job interviews in French.

The majority of research focuses on AVIs and personality traits assessment. Zhang et al. (2024) study Large Language Models (LLMs) in assessing personality and interview performance in AVIs. Devi et al. (2024) and Suen et al. (2020) present AVI platforms with AI decision agent predicting candidates personality traits. Nagajyothi et al. (2023) present an AI-based interviewing system for personality recognition with the use of AVIs and facial expressions. Wu et al. (2024) examine AI candidate interview evaluation based on text, audio and image modalities. Kamble and Kulkarni (2022) propose an AI interviewing system with AVI and automatic personality recognition of candidates testing their own personality through psychometric assessment. Su et al. (2021) present a system predicting behavioral competency based on microexpressions in real-time video recorded interviews.

Some studies focus on specific stages of the interview process, including interaction with recruiters. Sumathi et al. (2024) present an AI-driven virtual interviewer focusing on initial screening and question generation of interviews. Yadav et al. (2023) propose an AI-driven system with automated post-interview feedback to interviewers to improve their interviewing skills. Jagtap et al. (2022) propose an AI-based interview agent requiring the intervention of a human interviewer for completing the process.

Several studies propose AI-enabled mock interview tools for interviewees preparation (Barpute et al., 2024; Umbare et al., 2024; CJ et al., 2024; Jadhav et al., 2024). Sarumathi et al. (2025), Mandal et al. (2023) and Chou et al. (2022) propose AI-based interview simulation platforms. Si et al. (2023a) study AI models for virtual interviewers. Certain studies examine interview simulation using Generative AI (Madanachitran et al., 2025; Mahajan et al., 2024), virtual reality (VR) (Lee et al., 2024; Ajri et al., 2023) and metaverse (Si et al., 2023b).

Some works include emotion analysis in interviews, largely based on specific inputs, i.e. facial (Loga-Priya et al., 2025; Su et al., 2021; Nagajyothi et al., 2023; Suen et al., 2019), facial and voice/speech (Mandal et al., 2023; Navya et al., 2024; Sarumathi et al., 2025; Wu et al., 2024) or facial and body position (Umbare et al., 2024).

The literature review was followed by a review of the current commercial AI interview tools. A total of 8 platforms were selected, representing a diverse set of vendors, namely HireVue, Modern Hire, myInterview, Pymetrics, Vervoe, Curious Thing, Talkpush, and Sapia.ai. Most platforms (e.g., HireVue, myInterview, Vervoe) support AVIs, with some, like Sapia.ai and Curious Thing, using text- or voice-based conversational agents, while Talkpush incorporates chatbot pre-screening as part of interview scheduling and shortlisting. A subset of platforms (HireVue legacy, myInterview, Curious Thing) conduct emotion analysis, primarily using facial (HireVue, myInterview) and vocal (HireVue, Curious Thing) modalities. These analyses are typically used to infer traits like enthusiasm, confidence, or emotional stability. Few systems make limited use of contextualized interpretation (HireVue, Vervoe, Curious Thing, Sapia.ai) mostly based on text and semantics, with emotions often reduced to numerical scores.

4. AI HR Interview Assistant Model

This section describes a proposed model of an AI HR Assistant System, for candidate evaluation in interviews. Drawing on literature, the model suggests using AI in candidate multimodal contextual emotion analysis, derived from face, voice, motion and pulse, comprising the following components (Tab.1):

Multimodal emotion analysis. Multimodal input from face, body, pulse, voice is used for a combined emotion analysis. Each modality contributes to the assessment of the candidate, providing a rich holistic view focusing on emotional intelligence and soft skills.

Face analysis. Use of face recognition and facial microexpressions, e.g. from smile, eyes, lips, facial muscle movement, for assessing emotional state and detecting positive or negative emotions such as happiness, fear, confusion, anger, surprise. These can in turn be used to infer emotional stability, self-awareness, interpersonal communication or authenticity.

Motion analysis. Tracking and analysis of body language, motion, posture, gestures. These data can be used for the assessment of nervousness, openness, confidence and comfort level of the candidate, which can aid to infer self-control, presentation and interpersonal skills.

Pulse detection. Measurement of heart rate for stress assessment and emotional arousal. This will be captured from the interview video with motion amplification rather than biometric wearable devices which can be stressful for the candidate. The data analysis will aid in predicting stress response and management ability and resilience.

Voice analysis. Extracting and analysing elements such as tone, volume, pace and intensity of speech to detect anger, irony, interest, apathy, honesty and respect. Identifying characteristics associated with leadership ability or loyalty. The analysis will also use NLP for language and verbal content analysis. These can help to infer candidate confidence and communication skills or leadership.

Context-aware emotion analysis. Emotional responses from the multimodal emotion analysis are analysed contextually. Emotional cues are interpreted within the context they are detected, rather than rated with numeric scores, in relation to the type of questions and their semantics and the interview phase that they occur. In this way, evaluation is contextualised linking emotions with relative expressions to specific questions and stages during the interview. For example, the candidate appeared to be stressed in questions for presenting in public, or increased stress was detected in personal questions compared to technical ones.

Bias mitigation. Algorithms for mitigation of gender, age, race, cultural or disability bias should be applied in emotion analysis allowing for divergence and inclusion and alleviating misinterpretation of emotions. This mechanism reviews emotion interpretations for potential bias, filters emotion assessments to prevent disproportionate dependency on modalities and calibrates for demographic and cultural context. This entails the use of datasets covering variability particularly in non-verbal cues.

Dynamic Interview Adjustment. The contextually analysed emotions are used to adjust the interview process accordingly, by adapting questions and flow in real-time during the interview. For example, in case of stress being detected, the questions can be adapted to be calming or provide clarifications to help the candidate. A pause or change in the sequence or pace of questions can also be provided.

Human-AI Cooperation. The AI interpretations can be used to provide insights from the emotional analysis which are further evaluated by human recruiters to make final informed and justified decisions, allowing for accountability. The AI interpretations are reviewed and adjusted if necessary, mixing AI and human evaluation. This can apply, as a post interview stage, to interviews conducted by an AI interviewer as well as to hybrid interviews conducted by human recruiters with AI performing an emotional analysis of the candidate.

Feedback. Candidates can be provided with feedback about the use of AI in their interview, regarding the emotion analysis, the factors that were assessed and their contribution to the evaluation. This offers explainability and transparency, helping candidates understand their evaluation and also prepare for future interviews.

Table 1: Proposed AI interview model

Component	Functionality
Multimodal Emotion Analysis	Combine facial, voice, body and pulse input for a holistic emotional analysis.
Context-Aware Emotion Analysis	Link detected emotions to specific questions or interaction phases
Dynamic Interview Adjustment	Real-time adaptation of questions or interview pace based on detected candidate emotions
Bias Mitigation	Explicit de-biasing mechanisms based on gender, ethnicity, neurodivergence, cultural differences, etc.
Candidate Feedback	Provide candidates with feedback after the interview explaining what was

	measured and how it influenced evaluation.
Human-AI Collaboration	AI suggests emotional insights, but human recruiters retain final judgment and accountability.

The process described by the model can be discerned in three phases, before, during and after interview. First, the use of AI emotion analysis presupposes the candidates informed consent and opt-in before interview, with full disclosure of the process and compliance with legal and ethical requirements. During the interview, data are collected from face, voice, body and pulse signals and are used for the multimodal and context-aware emotion analysis, which is performed in conjunction with bias mitigation. The detected emotions are used to adjust the interview flow and questions if needed. After the interview recruiters can review the results of the emotion analysis to make an informed decision and candidates receive feedback.

5. Model evaluation

The exploratory qualitative study provided several insights about the evaluation of the proposed model. The participants were 6 male and 5 female, 20-28 years old, with the majority (82%) having at least one job interview experience. A thematic analysis was conducted following Braun and Clarke (2006). The analysis began with repeated reading of transcripts for familiarization with data. Recurring topics were identified, generating initial codes, which were grouped into broader themes and reviewed through iterative comparison across interviews, defining 3 themes: benefits, concerns and suggestions. The limited sample and dataset size allowed for a manual analysis, integrating interpretation. Reflexivity was maintained keeping notes and revisiting interpretations.

Benefits: Our respondents were largely positive regarding AI enabled interviews and the use of emotion analysis for their evaluation. They noted that they would like such AI interviews as bias would be mitigated and they would allow for more meritocracy. A participant mentioned "…*there is a lack of human empathy which helps avoiding emotional traps"*. Similarly, as mentioned by another respondent *"without a human it [the interview] would feel more relaxing, especially if it would be the first time, or if someone is anxious…I wouldn't worry so much wondering if I said something wrong*". They mentioned that they would consider it ideal for the evaluation of technical knowledge and skills as well as for evaluation of the candidate confidence and other traits. They also said that it allows for a richer evaluation as *"…it would be nice for evaluating stress or patience or other qualities that would be useful according to the profession in quest"*. In this way, AI-enabled interviews with multimodal emotion analysis can lead to improved evaluations that are more complete and accurate "…*judging not only based on typical qualifications but detecting confidence and other traits related to how one will handle situations at work in order to find the best candidate"*.

Concerns. There were several concerns expressed by participants. One respondent mentioned that it might be considered as disrespectful in the sense that *"...the company would not care enough to have a person devote time for conducting the interview whereas I have to spend time to be interviewed"*. Participants also noted that there is a lack of human contact

"*…which makes the process feel a bit strange and impersonal".* As another participant mentioned *"it would better for people who are relaxed, for those with anxiety it wouldn't be very helpful."* There were also reserved about the actual ability of AI and emotion analysis to evaluate the candidate's way of thinking, his/her emotional intelligence and other human factors. They also referred to reliability risks saying that *"…they are not very reliable, just like with AI CV filtering that leaves many good candidates out".*

Suggestions. There were also some proposals about the use of AI in interviews. A combination of AI and human was suggested, where the multimodal input is assessed with AI while the interview is conducted with a human interviewer. In this scenario, some also suggested to have the questions provided by the AI as an interview assistant. Another suggestion was to have two interviews instead of one, an AI-enabled, for technical skills and knowledge evaluation and one with a human interviewer for assessment of soft skills, such as cooperativeness, or *"…other qualities that AI might miss and a human can see and delve into*". As one respondent mentioned *"In this way, I could also be able to better judge if I like the company and if I would like to work for them".* Respondents also mentioned that the use of AI interview systems would be very useful to prepare candidates for interviews especially in cases of no prior interview experience.

6. Discussion

Our qualitative findings confirm the AI potential in interviews, highlighting that emotion analysis can increase the richness of candidate assessment, despite concerns about its reliability. Moreover, they suggest that hiring should not rely completely on the AI interview system but use AI-enabled interviews to complement traditional ones.

Our model proposes a dynamic interview process with multimodal contextual emotion analysis, which mitigates human bias and misinterpretation, allowing for transparency and fairness in interviews while keeping human in the loop, with recruiter involvement and candidate feedback. Compared to existing tools our model focuses on a more cumulative emotion analysis, combining multiple input modalities rather than limiting to specific input types and using context-aware interpretation rather than numeric scores assessment. It focuses on evaluating emotional intelligence rather than personality or performance, with flexibility in terms of diverse bias mitigation and interview adaptation rather than static questions. The comparison of our proposed model with existing research and industry tools is summarized in Tab.2.

Table 2: Proposed AI interview model vs current tools

Feature	**Proposed Model**	**Current Tools**
Multimodal Emotion Analysis	Uses multiple modalities, ie. face, voice, motion, pulse	Rely on facial or voice analysis or text sentiment analysis
Context-aware Emotion Interpretation	Emotions shown as patterns relative to interview phase, question type not scores	Context ignored, assign emotion to numeric scores

Emotional Intelligence (EI) Focus	Assesses EI traits like empathy or self-awareness	Focus on personality traits or performance traits
Dynamic Interview Adjustment	Adaptation of questions and interview style at real time	AVI, static questions
Bias mitigation	Sensitive to individual, demographic, cultural differences and neurodiversity in expression	Limited to race, gender or specific modalities
Candidate Feedback	Candidates receive feedback	Limited to no feedback to candidates

Our model proposes the joint use of multiple modalities, i.e. facial, voice, body and pulse input for emotion analysis. Many of the current tools do not use emotion analysis and those that do largely use one or two modalities, usually facial or facial and voice. The model also interprets emotional cues within context which is largely limited in current systems or performed as post-hoc, with interpretations being mostly as numeric scores. In addition, the model interpretations aim at emotional intelligence and soft skills while current research largely focuses on personality traits (e.g. Big Five) or performance prediction. While tools mostly focus on AVIs, our model proposes dynamic interview adjustment according to the emotional signs and enabling a responsive interview flow and experience. Unlike static interview questions usually found in literature, the model proposes the adaptation of questions tailored to the candidate emotions during the interview. Moreover, emotion analysis is controlled for bias mitigation, across modalities and cultural and demographic context, which is rather limited in current research. In addition, the proposed model exhibits transparency and explainability with feedback to the candidate which is often low or absent in several tools.

As with all studies, our work has certain limitations. The literature review, although comprehensive, is non-exhaustive. A more systematic review could be performed as several studies or tools may not have been captured completely. The proposed model components require deeper examination, particularly the emotional analysis, with respect to the modalities and their interpretation mechanisms. In addition, our study has primarily a conceptual focus with the empirical part and findings being rather limited. A more in-depth qualitative study is needed, with a higher in size and representativeness population, to assess the model across all proposed dimensions. Further research should also include an empirical study for the evaluation of the proposed model and features, in terms of an actual prototype system deployed and tested by users, examining technical implementation and validation aspects.

7. Implications

7.1 Research Implications

Our study highlights a number of issues about AI use in interviews that require futher research:

AI bias and fairness. The use of AI systems in interviews remains associated with an algorithmic bias risk. Bias existing in data used for training AI models can result to bias

reinforcement rather than its mitigation, causing discrimination and unfair evaluation. This calls for research for identifying and mitigating bias inherent in training data as well as for using different training datasets from diverse populations. Moreover, in addition to the most common forms of age, gender and race bias in interviews, research is needed to study AI fairness and evaluating diversity across cultures, communication styles, non-native speakers and disabilities.

Emotion analysis. Research is needed to determine the evaluation accuracy and validity of AI-enabled emotion analysis. This pertains to each modality (e.g. face) separately, regarding their relative accuracy and validity as well as their suitability and relevance for candidate evaluation. This will facilitate the ongoing debate for the applicability of emotion analysis in interviews and enhance our understanding of the relative applicability of certain types for different aspects of candidate evaluation, as well as their combined use and complementarity. In addition, context-aware analysis should be studied for improving the validity of emotion assessment.

AI role in interviews. Future research can study the possible roles of AI in interviews, as an evaluator, as an interviewer or as a coach preparing candidates for interviews. The role of AI can also be studied in conjunction with that of a human recruiter to reveal the best human-AI cooperation in interview-related phases and tasks (e.g. questions).

Candidates & Recruiters Perspective. Work is needed to understand the perceptions, attitudes and behavioral intentions of candidates as well as recruiters about using AI in interviews and emotion analysis in particular and also for the role of AI in interviews as mentioned above. Qualitative and quantitative studies are expected to enlighten factors related to trust and fairness of AI use or reveal new ones and their effects on AI use in interviews.

Ethical, legal and regulatory framework. Research need to study the current ethical, legal and regulatory adequacy and readiness for the design and adoption of AI interview tools. Research topics can include user consent and pressure, feedback and privacy, the use of biometric data, transparency and Diversity, Equity and Inclusion (DEI) principles.

7.2 Managerial Implications

Our study offers several practical insights for the effective adoption of AI interview tools that can be of use to interested parties in industry:

Invest in AI candidate interview and evaluation. AI-enabled interviews should be adopted by organisations, as part of a powerful AI recruitment tool, complementing and enhancing conventional hiring practices. Multiple input modes, e.g. facial expressions, voice, body language and pulse cues, should be leveraged to provide rich insights for the assessment of candidates' qualities, such as emotional intelligence, that are not easily captured by traditional interviews. Combined with context-aware analysis, recruiters can tailor selection criteria and emotion interpretation to real-time interview conditions, e.g. stress, enabling more accuracy and relevance to specific job requirements.

Human-AI balance. AI tools are to support rather than replace humans in their interview functions and decision making. AI should serve as an assistant providing structured insights

about candidates which are used by recruiters to make informed decisions. Hybrid human-AI interviews should also be considered to be used instead of AI-conducted interviews, e.g. humans using AI-generated questions. This might be combined with a shift from asychronous to synchronous video interviews for more flexibility, adaptiveness and personalised evaluation.

Training. Organisations should train HR professionals for the effective and ethical use of AI in interviews and candidate evaluations, allowing for accountability and explainability of decisions. Training should include interpreting emotional cues and understanding the limitations and risks of AI use, to enable bias awareness and critical review of AI-generated output before reaching a hiring decision.

Candidate preparation. Candidate preparation for interviews can also be part of the AI training agenda. AI interview simulation environments could be provided to potential interviewees to prepare before the interview, enabling them to gain a better understanding of the interview process and respond to it more effectively, providing output that facilitates their assessment.

Monitoring of Algorithmic Bias. Organizations must implement regular audits and bias mitigation strategies to ensure fairness. They should monitor AI algorithms to reduce bias in emotion analysis, question generation and phrasing and candidate evaluation. This requires continuous training and updates of AI models and the use of datasets reflecting different cultures and backgrounds.

Ethical Considerations. Organizations must make ethical use of AI and emotion analysis, including compatibility with DEI goals and principles. They should ensure candidate consent and privacy and provide transparency about how AI is applied in the interview process.

Legal and Regulatory Compliance. AI interviews should be aligned with legally prescribed practices (e.g. EU AI Act). Organizations must comply with evolving laws and regulations about the use of AI in interviews which implies continuous monitoring and adaptation.

8. Ethics

Ethics is a critical aspect of AI-enabled recruitment, with bias constituting a major, if not the most important, ethical concern. Our study calls for special attention of the ethics of AI adoption in recruitment and interviews, highlighting the issues that should be taken into account to ensure the fair and responsible use of the technology. Although they have already been covered as part of our research and practical implications, there are ethical challenges that are yet to be mentioned on a separate note. Apart from the bias and discrimination risk inherent in AI algorithms, there is also a risk of emotions being undetected or misinterpreted because of cultural or neurological particularities. In addition, ethical guidelines require that candidates are well informed of the process and opt in. However, emotion analysis can raise concerns about privacy invasion and consent in the sense that candidates agree and accept against their actual will as they may feel it as unavoidable for getting hired. Finally, there is a rather controversial quest for human bias mitigation in interviews by using AI which also suffers from bias that needs mitigation.

9. Conclusion

The use of AI in interviews offers many opportunities for an improved in effectiveness and objectivity hiring process. At the same time, it raises several concerns, largely of ethical nature. Our proposed AI interview model can serve as a blueprint for providing a holistic approach to leverage AI in interviews, with opt-in multimodal context-aware emotion analysis and dynamic interview adjustment, mitigating bias and supporting human recruiter decisions and candidate feedback. Our study, although of a theoretical lens, can add to the current body of literature providing valuable insights and directions for future endeavours in academia and industry.

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