

## Hiring Tomorrow's Talents: How Generative Artificial Intelligence Transforms Human Resources Recruitment

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### Abstract

*The global talent shortage has become a universal challenge, prompting practitioners and researchers to explore digital innovations as potential solutions for acquiring the right talents. However, the role of emerging technologies like generative artificial intelligence (AI) in human resources (HR) remains largely uncharted territory. This article investigates generative AI's transformative potential to augment recruiters' daily operations. Through a qualitative interview study, we derive and illuminate the opportunities of generative AI within the recruitment domain, shedding light on its promising opportunities but also addressing inherent challenges. The findings of this study propose a theoretical model of generative AI in recruitment and how it empowers recruiters in their daily tasks to recruit tomorrow's talents.*

**Keywords:** Generative Artificial Intelligence, Recruitment, Human Resources, Grounded Theory

### 1. Introduction

Artificial intelligence (AI) has become a ubiquitous technology and diffuses into a wide range of areas, from personalized experiences provided by social media platforms or e-commerce retailers to autonomous vehicles and smart assistants (Berente et al., 2021). Even more conservative companies and domains are now aware of the economic importance of AI, as this technology becomes an increasingly competitive factor (Ågerfalk, 2020). In light of the recent technological advancements, generative AI (GenAI) evolved as a new type of AI, with leading examples such as ChatGPT or Midjourney creating human-like content (Susarla et al., 2023). Generative AI applications enable novel capabilities ranging from creative writing, language translation, and coding to

digital assistants in various topics (Strobel et al., 2024). With publicly available services and easy-to-use applications, a large, non-technical user base is empowered to use GenAI for various tasks (Banh & Strobel, 2023; Susarla et al., 2023). Continuous investments and developments into GenAI demonstrate the transformative potential for various sectors, highlighting the demand to streamline processes and increase competitiveness in the economic landscape (McAfee et al., 2023).

While technology and digitalization are finding their way into enterprise strategies, companies themselves also need to deal with hiring the right workforce. The rising demand for skilled workers has become a universal challenge across many industries, triggering a competitive “war for talent” to attract highly qualified employees (Beechler & Woodward, 2009; Michaels et al., 2001). Hence, recruitment plays a pivotal role in a company's success and sustainable growth (Lawler, 2008). Traditionally, recruitment processes were manual and relied on human judgment and experience (Jatobá et al., 2019; van den Broek et al., 2021). From sourcing candidates, crafting job advertisements, screening and selecting applicants to negotiation processes – the recruitment workflow requires high degrees of human intervention and was cumbersome to automate digitally (Tambe et al., 2019; Willcocks, 2020). However, as digitalization advances, new opportunities are emerging to transform and enhance the recruitment process. By supporting humans in their tasks, algorithmic systems have proven to relieve workers by automating processes, augmenting capabilities, and providing assistance in decision-making or other data-driven tasks (Black & van Esch, 2020; Charlwood & Guenole, 2022). With its distinct capabilities of creating customized content and data, GenAI holds promising properties for optimizing the recruitment

process and enable productivity gains (Härlin et al., 2023; Noy & Zhang, 2023). Nevertheless, integrating GenAI also introduces challenges, such as concerns about data quality and privacy or potential job displacement, that may undermine trust and adoption (Brynjolfsson et al., 2023). There is an imperative need to improve comprehension regarding how GenAI can be assimilated into recruitment and other human resources (HR) processes.

Against this backdrop, this research paper investigates the transformation potentials and challenges of GenAI in recruitment. While first studies on GenAI adoption for specific industries and business functions exist (Boussioux et al., 2024; Kshetri et al., 2024), our specific research context in HR lacks theoretical developments regarding the adoption and opportunities of GenAI that can guide researchers and practitioners (Sabherwal & Grover, 2024). The findings will contribute to the ongoing discourse on the use of GenAI in recruitment and HR (e.g., Brynjolfsson et al., 2023; Budhwar et al., 2023), providing valuable insights for businesses, recruiters, and the research community. Furthermore, the results can facilitate the development of guidelines and best practices for the responsible application of GenAI. Specifically, this work will address the following research question: *How can generative AI be leveraged for recruitment?*

To answer this question, we chose a qualitative research approach and conducted an interview study with experts from HR departments to develop a grounded theoretical framework on the application of GenAI in recruitment. We followed the principles of purposive sampling to select appropriate recruitment experts from a range of large and small-scaled companies and developed a semi-structured interview guide that focused on the elicitation of the experts' thoughts and views on GenAI for their recruitment-related tasks (Myers & Newman, 2007). This study offers a grounded framework to explain how GenAI supports recruitment processes and which potentials and challenges affect individual and organizational actions from a socio-technical perspective. The insights may provide a useful foundation for future researchers who want to investigate the adoption of GenAI as well as for HR practitioners who seek to apply GenAI for improving recruitment processes.

## 2. Theoretical Background

### 2.1. Generative Artificial Intelligence

Since the idea of enabling machines to imitate human behavior and thinking in the middle of the 20th century, AI has developed rapidly as a technology

(Berente et al., 2021; McCarthy et al., 2006). The recent advances in AI algorithms and computing have revolutionized data-driven tasks with novel generative capabilities. This progress enabled GenAI to create unique, realistic, contextually-appropriate content almost indistinguishable from human-generated material (Sabherwal & Grover, 2024). Instead of processing data to determine decision boundaries (e.g., classifying images or predicting revenues), GenAI models pursue the probabilistic generation of new data to enable a variety of use cases (Banh & Strobel, 2023). For instance, large language models (LLMs) are trained on large corpora of data and can generate context-specific texts by predicting which token (i.e., text segment-like characters or words) is most likely to occur after the prior tokens in a sentence (Schramowski et al., 2022). Multi-modal capabilities of various LLMs not only allow for the creation of texts, but also images, audio, or even more complex data types such as molecules (Strobel et al., 2024).

Consequently, various domains and industries like marketing or software development explore the potential adoption of GenAI (Leonardi, 2023; McAfee et al., 2023). With novel capabilities and user-friendly natural language interaction paradigms, GenAI applications facilitate opportunities to augment and automate processes that have traditionally been difficult to innovate (Banh & Strobel, 2023), including tasks requiring human-based reasoning, creativity, or empathic interactions (Härlin et al., 2023). Thus, GenAI offers the prospects of enabling disruptive innovation and allowing businesses to stand out in a competitive economic environment.

### 2.2. Recruitment in the Era of AI

While GenAI has evolved rapidly in consumers' lives and industries, it has not yet reached recruitment practices (Budhwar et al., 2023). However, using digital technologies in recruiting has become a necessity since companies find themselves in the era of "Digital Recruiting 3.0" (Black & van Esch, 2020, p. 218). The extensive Internet use in recruitment practices has resulted in an exponential increase in the number of applications per job, placing considerable pressure on companies to adopt digital technologies for efficient management (Desouza et al., 2020). Google, for instance, received 140 times more applications than jobs they had to offer (Torres, 2017). AI tools are particularly promising since they allow to manage data and applications independent from their format (Black & van Esch, 2020).

However, the potential of AI lies not only in managing large numbers of applicants (Vrontis et al., 2022). Concrete adoptions of AI usage can be found in

almost all major recruitment areas, including sourcing candidates, job matching, and screening applications (Pan & Froese, 2023). Exemplary AI adoptions show how GenAI could be promising to automate and assist companies' recruitment functions (Delgado-Gómez et al., 2011; Torres, 2017). Hence, we explore its application for the nascent era of digital recruiting.

### 3. Research Method

Our qualitative research design focuses on engaging with HR recruiting employees to gain insights and knowledge in the processes and tasks of their work. We decided on conducting an interview study due to its potential to generate rich data from multiple perspectives of experts' own experiences (Myers & Newman, 2007). We used purposive sampling to identify suitable experts with recruitment-related roles from a diverse set of companies who contribute with broad perspectives from their organizational contexts (Paré, 2004). Nonetheless, we paid attention to selecting experts from organizations under the assumption of literal replication logic, aiming for similar results due to common characteristics (e.g., a minimum size of 100 employees so that a distinct HR department is in place). This approach allowed us to holistically explore opinions and experiences regarding GenAI technology adoption to identify and derive opportunities that are not bound to company characteristics or industry specificities, enhancing the generalizability of our findings.

#### 3.1. Data Collection

The data collection process took place between August 2023 and January 2024 and comprised of the conduction of semi-structured interviews with experts in recruitment from five different companies. The case companies selected are head-quartered in German-speaking countries, with businesses spread across

several domains including chemicals, energy, consulting, and civil engineering (see Table 1). We prepared an interview guide as well as questions regarding daily tasks and personal opinions towards GenAI and digitalization to support the interview process. During interviews, we deviated from the guide as needed to adapt to the conversation flow and delve into more details on relevant topics concerning our research questions. All interviews were held virtually in German and were recorded, transcribed, and then translated into English. We encouraged the experts to openly share their processes and opinions during their daily tasks as well as thoughts, feelings, and beliefs about GenAI in the context of recruitment and subsequent HR processes. The focus was put on their personal view towards potentials and risks of adopting GenAI in recruitment. To ensure reliable answers, we selected participants from a variety of recruitment-related positions, ranging from HR generalists over HR consultants to specialized recruiters. Moreover, we aimed for a mix of junior and senior employees (recruiting experiences between two and twenty-six years) to cover different perspectives towards GenAI and technology adoption.

#### 3.2. Data Analysis

Given the novel and emerging nature of GenAI, we have chosen an empirical approach driven by the grounded-theory method (GTM) (Charmaz, 2014). GTM provided the necessary flexibility to derive insights regarding the opportunities of GenAI within the HR domain and allows exploring phenomena that lack extensive prior research (Birks et al., 2013). We applied a socio-technical lens to craft insights anchored in the technology (i.e., generative AI) while encompassing its social context (i.e., recruitment), pinpointing the potentials of GenAI for recruiters, considering their distinct goals and requirements.

**Table 1. Overview of interviewed experts**

ID	Position	Company	Employees	Experience	Duration
A1	HR Consultant	Alpha	1,200	15 years	20 mins
B2	Recruiter			9 years	29 mins
C3	HR Consultant			13 years	15 mins
D4	HR Business Partner			14 years	13 mins
E5	Senior Recruiter			7 years	28 mins
F6	Consultant People Development			4 years	22 mins
G7	HR Generalist	Beta	200	2 years	45 mins
H8	Recruiting Service Manager	Gamma	34,000	3 years	32 mins
I9	Senior Talent Acquisition Manager			26 years	41 mins
J10	Senior Talent Acquisition Manager			10 years	31 mins
K11	Consultant Executive HR	Delta	72,000	3 years	25 mins
L12	Junior HR Business Partner			4 years	19 mins
M13	Recruiting Specialist	Epsilon	9,000	5 years	27 mins

To structure and analyze knowledge from the data, we followed the three-stage process of open, axial, and selective coding until a theoretical saturation was reached (Strauss & Corbin, 1998). By following GTM guidelines, the data analysis was primed under a constant comparison of emerging concepts and its linkages between the data (Charmaz, 2014). Lastly, we developed an emerging theoretical model using the Gioia methodology to achieve qualitative rigor (Gioia et al., 2013). Additional data of our analysis (e.g., data structure) is available online: [https://osf.io/xptes/?view\\_only=23f55539c56843c69e35c6029204b66a](https://osf.io/xptes/?view_only=23f55539c56843c69e35c6029204b66a)

## 4. Results

In this section, we present the opportunities as well as the inherent challenges for GenAI in recruitment (see Figure 1). By analyzing the insights from the interviewees along our data structure, we were able to derive a theoretical model that puts the different aggregate dimensions into context and assesses dynamic relationships among the 2<sup>nd</sup> order themes (Gioia et al., 2013).

### 4.1. Opportunities of Generative AI in Recruitment

The interviewed experts unanimously agreed that GenAI’s advanced language processing capabilities play a major role in enabling a successful application for recruitment. They form the basis for enhancing candidate quality and relevance as well as for improving the efficiency of recruiters in their daily tasks. Consequently, these opportunities mutually complement each other.

Regarding **Recruiter Efficiency Improvement**, assisting routine tasks was identified as a key potential of GenAI in supporting improved efficiency as recruiters often face repetitive tasks in their professional lives (e.g., “crafting engaging job advertisements”, expert H8). In this regard, GenAI is capable of automatically creating tailored job posting content with customized texts, images, and even proposing publication strategies, saving recruiters valuable time while ensuring specificity and engagement. The experts agreed that GenAI can act as

a sparring partner, providing inspiration for design or context-sensitive information to specific roles similar to search engines, but acknowledge that a complete takeover of tasks is not feasible in the current state of technology (experts A1, G7, K11, L12, and M13). Interestingly, getting the job done with GenAI has been described as “[...] *being really fun because you can create a job advertisement in a wink*” (expert I9). Additionally, GenAI can support processing and summarizing requests in HR departments, instantiated via communication platforms and chatbots or simply by being prompted with emails.

**Automating communication** was already sketched in the context of assisting routine tasks but was explicitly highlighted by several experts to achieve the goal of efficiency improvement (experts F6, G7, L12, M13). Effective communication within the realm of recruitment is vital for engaging with various stakeholders. Hence, it requires clear, concise, and transparent message exchanges to reduce misunderstandings, conflicts, and preserve positive relationships. Precise feedback allows applicants to target their weaknesses and grow effectively, while maintaining respectful interactions and appreciating applicants is key to creating a positive communication environment. Experts I9 and M13 reported how their organization uses templates to harmonize and streamline the communication process, thus eliminating the necessity for writing new emails each time an interview invitation is sent. This approach should ensure that the correct tone is maintained throughout the candidate communication. With GenAI-based tools, they are now capable of sending customized messages tailored to the applicants “so that they receive more valuable feedback besides the typical phrases” (expert M13). However, concerns were raised regarding a potential lack of empathy. LLMs may struggle with conveying empathy and understanding human emotions, especially in sensitive situations, leading to potential misunderstandings. A careful implementation and prompting of GenAI systems fosters the emulation of human-like answers, offering efficiency and scalability. Especially during periods with high application volumes, automating parts of communication results in freeing up recruiters responsible for applicant management to focus on more strategic tasks. Due to the multi-modality of

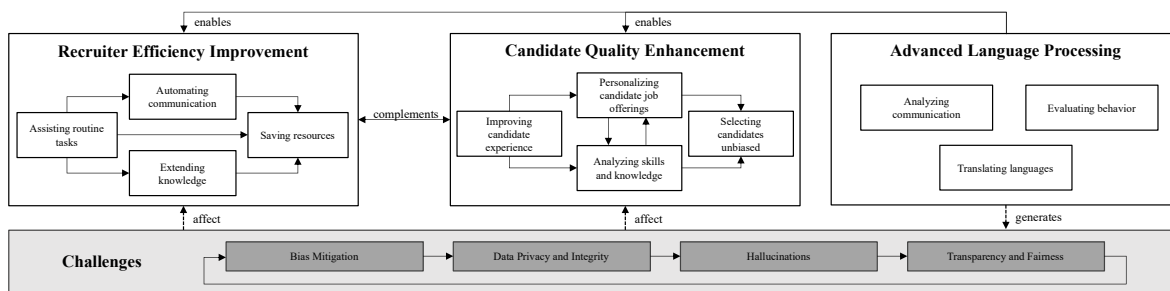


Figure 1. Theoretical model of generative AI in recruitment

GenAI models, the potential for automated communication spans across various communication channels, including e-mail, chat, and voice messages. Thus, recruitment departments not only benefit from improved accessibility and responsiveness with 24/7 availability but are also able to enhance message relevance by tailoring information based on prior interactions and entered user data. Moreover, applicants may be provided with automated updates during the whole recruitment process.

**Extending knowledge** poses a potential that GenAI affords for streamlining the recruitment process. Experts mentioned how they appreciate the information gathering and consolidation capabilities of tools like ChatGPT. For instance, expert H8 mentioned that “recruiters don’t know all the specific requirements and qualifications for any particular role.” This information needs to be defined by the hiring departments. To minimize the time-consuming coordination of eliciting necessary details with the departments, recruiters can leverage GenAI to draft preliminary job descriptions with domain-specific knowledge. Moreover, recruiters are enabled to solve technical tasks such as crafting Excel formulas with suggestions from GenAI systems that are tailored to a request (experts H8, K11). The complex and error-prone transfer of knowledge from the Internet gets mitigated by context-specific results generated by LLMs. Hence, recruiters can extend their personal knowledge and capabilities, leading to adaptability, less dependencies, and efficiency gains.

**Saving resources** is an immediate outcome resulting from efficiency-improving potentials. Effectively managing recruiting budgets is crucial for optimizing resource utilization while attracting qualified applicants. This involves identifying cost-efficient recruitment strategies, aligning advertising with target demographics, and streamlining time-consuming tasks (Bondarouk et al., 2017). GenAI simplifies tedious manual tasks like communication or research, enabling HR managers to focus on more strategic responsibilities. It reduces the need for excessive personnel, leading to cost savings, particularly in large organizations with high applicant volumes. In addition, recruiters can handle tasks such as copywriting or social media post creation, eliminating external agencies hiring. Nonetheless, concerns were raised that resources are just reallocated to other departments, such as into IT teams and AI development. Leveraging modern technology “*can be a double-edged sword*” (expert C3), with significant investments into the implementation and training of employees on the one hand and cost savings and resource efficiency effects on the other hand (van Esch et al., 2019). Hence, the experts see the potential of

GenAI facilitating recruitment processes, allowing companies to optimize resource allocation and improve overall efficiency.

The next theme targets **Candidate Quality Enhancement**. Here, **improving the candidate experience** is a top priority for companies in today’s competitive talent market, which covers all candidate interactions with the potential employer during the application and hiring process (Allden & Harris, 2013). During the interviews, the experts emphasized the importance of ensuring a positive candidate experience and making a good first impression for a positive perception of the company (experts B2, H8, J10). For instance, expert B2 stressed the need for candidates to have a “*smooth application experience*”. GenAI can assist by expediting job searches, promptly addressing queries, and providing timely updates on the application’s status. Therefore, GenAI-driven virtual assistants are “*not as static as in the past*” (expert J10) by being available 24/7 and reducing waiting times to demonstrate responsiveness to candidate concerns. Personalization is another aspect of enhancing the candidate experience, with GenAI offering a personalized approach, tailored recommendations, and individual guidance based on an applicant’s profile.

**Personalizing candidate job offerings** emerged during the interviews as an action potential fueled by using GenAI. With data-driven approaches for the recruitment process, the experts discussed using GenAI systems to offer applicants customized job offers and recommendations aligned with their qualifications, skills, and career aspirations. Such systems would analyze application materials and job descriptions to generate tailored recommendations. This approach, often referred to as job matching (Guo et al., 2016), allows recruiters to focus on a more refined pool of candidates closely matching the job requirements, enhancing the selection process’s speed, relevance, and the quality of candidates, while emphasizing that the final decision remains with a human (Mirowska & Mesnet, 2022).

**Analyzing skills and knowledge** was mentioned by the recruitment experts as a task that they see GenAI could support. By analyzing CVs, references, and certificates to match applicants with job requirements, candidates as well as companies benefit from better pairings. The experts expressed their desire for GenAI with its natural language processing to evaluate competencies with clear criteria swiftly and accurately, streamlining the overall assessment process (experts B2, E5, J10). Another valuable application of GenAI was seen in “*evaluating applicant tasks, such as written tests or essays, using natural language processing to assess content*”

*relevance, grammar, and writing style*” (expert E5). Moreover, hiring companies may offer individualized training recommendations based on applicants’ skills, fostering their professional development alongside improving the recruitment process. This approach enables companies to select suitably qualified candidates while providing growth opportunities for promising candidates. Hence, recruiters can focus on high-quality selection decisions instead of having to deal with a large number of applications. Nevertheless, concerns were raised about GenAI’s ability to capture nuanced qualities that might not be evident in applications lacking personal contact.

**Selecting candidates unbiased** is an important goal for recruiters to achieve equal opportunities for all applicants. The application of GenAI in recruitment offers the potential to establish objective selection criteria, moving away from subjective human judgments to data-driven algorithmic decision-making, enhancing fairness in the selection process. By relying on technology, the experts discussed whether AI-driven systems can evaluate applicants solely based on qualifications and performance, thus minimizing personal human biases. The widespread skills shortage is a challenge companies are facing, with GenAI facilitating the potential to identify candidates who might be missed through traditional means (van den Broek et al., 2021).

Finally, **Advanced Language Processing** emerged as an opportunity driven by GenAI in recruitment. **Analyzing communication** and natural language is a capability that the recruitment experts find useful with GenAI models. This includes comprehensively processing human speech, including converting spoken or written words into digital data and analyzing tone, intonation, nuance, and context. Compared to rule-based natural language processing tools or even machine learning-based approaches, GenAI and its LLMs excel in capturing not just words but also the deeper meaning and context of human communication (Webb et al., 2023). Thus, valuable insights can be offered to the recruiters, based on applicant’s information exchange and submitted documents. During the interviews, expert C3 highlighted *“AI’s ability to process applicant responses in real time and extract relevant information for further assessment”* as an advantageous feature. This proficiency in language interpretation presents a wide range of opportunities for enhancing the selection process, such as the ability to reveal relevant information that may have been overlooked in conventional job interviews.

**Translating language** is one approach to overcome language barriers in a globalized world where talent is sought internationally. GenAI offers

language processing capabilities that exceed analyzing and understanding language, enabling a seamless translation across various languages via different modalities (Siu, 2023). This facilitates handling applications and conducting interviews in applicants’ native languages while maintaining clear comprehension (experts E5, J10). Moreover, LLMs go beyond mere word translation, accounting for cultural nuances to ensure respectful and appropriate communication (Ahuja et al., 2023). By reducing language barriers, GenAI broadens companies’ talent pool, allowing them to target candidates from diverse countries and language communities that might have been overlooked previously. This promotes diversity and identifies highly qualified candidates often missed in mono-lingual or bilingual recruitment processes.

**Evaluating behavior** also stems from the advanced language processing of GenAI models and was mentioned as an important aspect during the recruitment process to be able to assess the candidates’ but also the employees’ interactions (experts E5, I9). Analyzing the opinions and behaviors of candidates and current employees regarding (dis)satisfaction is essential for predicting hiring opportunities and employee turnover, thus supporting HR management in staffing and improving employee retention. GenAI with its language processing can examine patterns during interviews, performance reviews, or HR service requests through multi-modal data analysis, enabling proactive responses to potential issues and actions to enhance engagement.

## 4.2. Challenges of Generative AI in Recruitment

While the recruitment experts highlighted multiple facets of GenAI that aligned with their goals of efficiently acquiring talents and managing their daily tasks, they also critically discussed some overarching challenges and risks inherent to the adoption. These challenges range from transparency and fairness aspects to data privacy, bias mitigation, and hallucinations and are not only of technical nature, but also have a societal and organizational impact.

**Transparency and fairness** in decision-making is a challenge for adopting GenAI, and AI in general, as algorithms and automated tools affect different steps of the recruitment process, such as the selection and evaluation of candidates. Fairness in this context refers to the equal treatment of all applicants, regardless of personal characteristics and is about ensuring that every applicant is given the same opportunity, regardless of their individual identity or affiliation. It is often difficult to trace the underlying decision-making processes and fathom the overall

system behavior due to LLMs' indeterministic characteristics (Banh & Strobel, 2023). Complex algorithms and untransparent black-box models also play a role, as they are challenging to interpret due to their reliance on statistical processes and undisclosed training datasets (Pfeiffer et al., 2023). Hence, concerns about fairness, discrimination, and ethics arose among experts A1, B2, and D4 who argued that this issue emerged from inadequate documentation of decision-making processes, especially during candidate selection. This lack of clear records makes it challenging to track and detect potential discrimination or biases. Ambiguity about the output of GenAI systems was another significant factor, making it *"difficult to understand the motivations and intermediate steps of a generative AI system"* (expert B2). The causes of transparency issues in the recruitment process have direct consequences for both applicants and company employees, resulting in a lack of trust, understanding, and consequently the acceptance of GenAI. For instance, applicants may experience frustration and uncertainty when they cannot understand the recruitment process, eventually diminishing their efforts and causing potential candidates to seek opportunities elsewhere. Transparency and fairness is achieved by explaining algorithms and models through comprehensible training materials and the integration of explainable AI methods, demystifying AI's "black box" nature (Baum et al., 2023). Essential training for recruitment staff should cover AI literacy, ensuring they understand mechanisms, interpret outcomes, and are prepared for decision tracking or review scenarios (Black & van Esch, 2020; Pinski & Benlian, 2024). Companies can also provide transparency to applicants through informative documents of the *"candidate journey"* (expert H8) and a feedback channel for continuous process improvement.

**Data privacy and integrity** were described by the experts as paramount challenges to comply with regulations, protect personal data, as well as safeguarding the relationship with candidates and the own employees. The extensive gathering of data spanning personal information, professional backgrounds, and even psychometric profiles are essential practices in recruitment but raise significant concerns regarding data privacy and data rights. Some interviewed experts even reported that GenAI's novel data privacy challenges has resulted in organizations actively deciding against AI use in the screening process to protect personal data (experts J10 and M13). Further processing in information systems and GenAI applications call for transparent data collection, usage disclosures, and adherence to the principle of data minimization to conform with laws such as the

General Data Protection Regulation (GDPR) of the European Union (Hacker & Passoth, 2022; Hamon et al., 2022). Implementing measures such as data encryption, access controls, and regular audits becomes imperative to fortify against potential data leaks and security breaches. Several experts described their workflow in using GenAI for text generation by pasting relevant information as the input while manually removing sensitive data such as company name or personal data (experts H8, I9, M13). Establishing clear responsibilities for data protection and processing, alongside comprehensive policies for data use and storage in accordance with GDPR legislation, is integral for maintaining compliance, mitigating potential liability risks, and building trust with applicants and employees while upholding the integrity of the recruitment process.

**Bias mitigation** is another integral challenge the experts outlined. Several themes and issues were raised that highlighted the risks of bias along GenAI-supported processes. As fairness and equity are paramount in recruitment, applicants expect and should be allowed to present their qualifications without discrimination. However, concerns arise regarding the fair analysis of candidate data because historical data biases may be introduced from GenAI's underlying models and training data (Schramowski et al., 2022). Consequently, expert B2 highlighted that *"[...] every AI is only as good as its training data. However, the data has always been very biased: biases against women, against people of color[...]. As recruiters, we need to be aware of those challenges, legally, ethically, and for the company's reputation."* Identifying and addressing bias in GenAI-supported processes is therefore critical to prevent the diffusion of unwanted effects onto affected people (Jakesch et al., 2023). Especially the topics of diversity, equity, and inclusion are relevant topics for corporate strategies and the area of HR and recruitment plays a crucial part in it (expert L12). The experts proposed the implementation of policies regarding the use, comprehensive testing, and a thorough manual review of the output data with human supervision to mitigate biases and ethical risks.

**Hallucinations** manifested in inaccurate or falsely generated data are caused by the technical foundation of how LLMs work and pose an intrinsic challenge to GenAI-based systems (Ji et al., 2023). While some experts stated that the probabilistic behavior may be seen as a feature to foster creativity (e.g., when designing and drafting job advertisements or social media posts), hallucinations are usually not desired when processing requests, applications, or communicating with candidates (expert I9). Instead, precise and accurate data handling is needed as faulty

or malicious output could lead to “*misleading, unfair, or discriminatory information that negatively impact various affected parties*” (expert D4). Sophisticated prompting strategies are needed as “*the AI gets only as good as you feed it*” (expert J10). Therefore, validation and monitoring mechanisms can support error detection and foster early correction. The concept of human-in-the-loop was adopted by several experts’ workflow, highlighting one approach of manual supervision to check for plausibility and correctness (experts J10, M13). Although expert M13 highlights that GenAI tools have already found its relevance in their workflow and established a certain level of trust, the results usually only serve as inspirations.

Overall, there are several challenges to realizing GenAI opportunities for recruitment applications that impact the successful achievement of goals and expected outcomes. The results of our study showed how mitigating risks concerning data privacy and integrity is necessary in establishing trust and adhering to legal requirements as the processing of sensitive, personal data is the cornerstone of the recruitment lifecycle. These data privacy concerns have a direct impact on challenges concerning the transparency and fairness of GenAI output as well as generated hallucinations, ultimately leading to the necessity of bias mitigation. Recruiters and candidates must deal with an untransparent data generation process, making it difficult to understand how certain conclusions or assessments were reached. To address these challenges and to leverage the positive potential of GenAI in recruitment, targeted measures for improvement are required. These measures should be based on core values and adhere to industry-spanning ethical guidelines in HR.

## 5. Discussion, Conclusion, and Outlook

In response to the rapid evolution of GenAI and companies’ growing pressure of acquiring skilled workers (Leonardi, 2023; McAfee et al., 2023), we explored the potentials and challenges for GenAI in recruitment. Specifically, we showed how GenAI, with its advanced language processing capabilities, enables recruiter efficiency improvement and candidate quality enhancement. Additionally, we generated prescriptive knowledge by outlining how to address the imposed challenges of GenAI adoption in recruitment. Our results contribute to the call for research on how GenAI facilitates the digital transformation of different industries (Nah et al., 2023). By contributing to research on the adoption and use of GenAI, our work offers two distinct **theoretical implications**: **First**, our framework provides an initial conceptual foundation offers a starting point to deepen

the body of knowledge on GenAI adoption. The findings represent an instantiation of GenAI opportunities particularly for HR recruitment and offer insights into the mechanisms behind GenAI adaptation. **Second**, the findings suggest a lack of knowledge regarding the differentiation between traditional, discriminative AI solutions and generative AI approaches. Considering the fast adoption in the consumer market, this seems surprising and, at the same time, shows that AI literacy is not yet advanced (Pinski & Benlian, 2024). Scholars can use this as a motivation to promote education on GenAI.

Our work also offers two valuable **practical implications**: **First**, the framework offers a guide to HR managers for applying GenAI in recruitment processes by thoroughly uncovering the potentials and challenges. Our findings support companies to benefit from the adoption of GenAI and the identification of white spots, i.e., what areas can profit from the technology to gain a competitive advantage (Ågerfalk, 2020; Lawler, 2008). However, transforming current processes can be a “*double-edged sword*” (expert C3), emphasizing the need for respecting the challenges. **Second**, the identified individual opportunities in our framework allow managers to ensure that users are aware of the possibilities offered by GenAI.

While this work has provided valuable insights into this emerging field of GenAI in recruitment, it is essential to acknowledge the **limitations**. As with every qualitative study, our research is subject to the participant sample (Myers & Newman, 2007). To account for a rigorous sampling, we relied on triangulation and selected experts from various European companies that feature distinct characteristics to capture views in different organizational contexts (Myers & Newman, 2007). Moreover, the study’s data collection occurred in a specific period, making it susceptible to changes in the rapidly evolving field of GenAI and offering opportunities for longitudinal studies in the future.

Thus, we suggest several perspectives for **future research** that can further advance the field of GenAI in recruitment and beyond. **First**, we propose to study the phenomenon on an individual level to understand how GenAI affects its users. This includes research on acceptance, behavioral changes, and cognitive effects, as well as novel forms of human-GenAI collaboration (Jarvenpaa & Klein, 2024). **Second**, further research on the organizational level is needed that studies adoption in different domains and develops process models and best practices for successful and responsible implementations. **Third**, investigating the economic effects might be interesting as GenAI is still nascent, with constant and rapid developments still happening. Uncovering mechanisms behind GenAI

diffusion advances the body of knowledge on disruptive innovations and the transiency of GenAI.

We are confident that our framework of GenAI potentials in recruitment provides a sound grounding for researchers and practitioners to further explore and discuss the transformative potential as well as the consequences for HR and other fields.

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