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# AN OVERVIEW OF CHATBOTS USAGE IN RECRUITMENT AND SELECTION PRACTICES

Babak Barghi

*Universitat Politècnica de Catalunya-BarcelonaTech*, babak.barghi@estudiantat.upc.edu

Eva Gallardo-Gallardo

*Universitat Politècnica de Catalunya-BarcelonaTech*, e.gallardo@upc.edu

Vicence Fernandez

*Universitat Politècnica de Catalunya-BarcelonaTech*, vicenc.fernandez@upc.edu

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# AN OVERVIEW OF CHATBOTS USAGE IN RECRUITMENT AND SELECTION PRACTICES

*Research full-length paper*

Barghi, Babak, Universitat Politècnica de Catalunya – BarcelonaTech, Terrassa, Spain,  
babak.barghi@estudiantat.upc.edu

Gallardo-Gallardo, Eva, Universitat Politècnica de Catalunya – BarcelonaTech, Terrassa,  
Spain, e.gallardo@upc.edu

Fernandez, Vicenc, Universitat Politècnica de Catalunya – BarcelonaTech, Terrassa, Spain,  
vicenc.fernandez@upc.edu

## Abstract

*Artificial Intelligence (AI) has affected different functions of businesses, including Human Resources, and particularly, recruitment processes. With Chatbots (conversational agents) systems in place, HR can perform tasks like identifying, selecting, and interviewing talented candidates quickly and efficiently. This study offers an overview of the current state of chatbots usage in recruitment and selection processes. To do this, we performed a literature review. We have retrieved academic articles from Scopus and Web of Science until March 2022. Also, we complemented the information retrieved with several searches on Google so as to find interesting grey literature and information. First, we define a chatbot and discuss its technical and social requirements. Second, we explain how chatbots are currently used in R&S processes in organisations, their benefits and their cons. By doing this, we seek to give AI and NLP developers valuable insights when creating chatbots for recruiting objectives.*

*Keywords: Chatbots, Artificial Intelligence, Recruitment, Selection.*

## **1 Introduction**

Labour recruitment and selection have risen to the top of management's priority list (Black & Esch, 2020; Kulkarni & Che, 2019). As the competition for talented employees grows, the resources for finding these individuals remain the same (Allal-Chérif et al., 2021), which means that the speed and cost of recruiting the best candidates have become crucial for organisations. Moreover, during the pandemic of Covid-19, remote working and global diversity were some of the significant variables impacting talent acquisition. We witnessed digitalisation, artificial intelligence (AI), and robotics moving forward on a fast track. Indeed, the adoption of AI-enabled services is increasing among HR professionals (Li et al., 2021). In HR departments, AI is involved in job replacement, human-robot collaboration, training, decision-making, and recruiting (Vrontis et al., 2021). When you apply for a company position in today's world, AI will likely be involved in the hiring process (Black & Esch, 2020).

With the emergence of the internet, the approach to hiring new employees has changed significantly. According to Black and van Esch (2020), the recruitment process has transformed from Analog recruitment to Digital Recruiting 3.0. After traditional recruiting methods, such as paper-based job advertisements, the internet helped HR evolve and adapt to the world's needs. In the mid-1990s, when the internet provided digital job boards, the search method transformed, known as Digital recruiting 1.0. In Digital Recruiting 2.0, the job advertisements were categorised based on specific roles and skills. In this period, professional social platforms like LinkedIn were born that helped recruiters to share best practices and find job seekers. From the standpoint of job seekers, these platforms helped them expand their professional network and find desired roles more conveniently. From 2010 to 2015, the age of digital recruiting 3.0 began when AI first entered the HR profession. According to the latest Global Talent Trends from LinkedIn (2022), we are experiencing the Great Reshuffle era, where the challenge for recruiters is to help preserve and evolve their own organisation's culture while hiring at scale. Companies must ensure new hires add to their culture rather than subtract from it. Indeed, hiring the proper fit among candidates has been and still is one of the most challenging tasks for talent hunters.

According to Allal-Chérif et al. (2021), many industries are using AI to improve their processes and performance, which also affects their recruiting and selection processes (R&S). For instance, Vardarlier & Zafer (2020) pointed out that AI accelerates the recruitment process and increases the probability of perfect matching. Moreover, with a higher volume of applications, AI can be helpful in screening applicants resulting in reducing the time of the recruitment process (Black & van Esch, 2020). Also, some authors discuss the impact of diversity hiring (Altemeyer, 2019) since automated processes can help generate a vast and diversified pool of candidates (Wilson & Daugherty, 2018). The implementation of AI tools in companies, due to technological advancements in Industry 4.0, provides solutions to cope with this scalability barrier. Likewise, since AI applications can automate certain tasks, it gives the opportunity for HR professionals to focus on decision-making responsibilities and act as supervisors in specific processes (Hemalatha & Kumari, 2021; Kulkarni & Che, 2019). These new tools are primarily used for time-consuming and repetitive tasks that help save costs and time for companies (Nawaz & Gomes, 2019; Ibrahim & Hassan, 2019).

Nowadays, companies are mostly adopting AI to use chatbots/CRM apps, admin-related task automation, and screening software (CVs and videos) for their R&S processes (Albert, 2019; Majumder & Mondal, 2021). Within the AI tools applied to recruitment, chatbots are gaining importance. According to a recent Gartner report (2019), by 2022, 35% of companies will leverage AI capabilities like conversational user experience and natural language processing (NLP) in their recruitment process to simplify the job application process. NLP empowers the machines to interpret, learn, communicate and automate processes in any written natural language (Navigli, 2018; Hemalatha

& Kumari, 2021). It allows for making conversational AI applications (also known as a chatbot) user-friendly and understanding user queries in real time (Srimathi & Krishnamoorthy, 2019). Moreover, multiple studies have found that chatbots' perceived humanity promotes user experience and adoption of these technologies. As a result, recently, authors have been focusing on how to increase the effectiveness of these systems and improve the quality of human-robot interactions (Van Esch et al., 2019; Schildknecht et al., 2018).

With the development of NLP and Deep Learning techniques, chatbots are more used in the recruitment process (Allal-Chérif et al., 2021; Albert, 2019; Allouch, 2021). They help save time and cost for the initial point of contact between a candidate and a company, such as a career website, job offers, frequent questions, and eventually the application submission (Laurim et al., 2021; Nawaz & Gomes, 2019). Recruiting chatbots can facilitate communication with candidates by arranging assessments, and interviews, asking open questions about their skills, background, and expectations once they apply for available roles. Using conversational agents in the recruiting process will demand an emphasis on emotional intelligence, social skills, and learning how to interact effectively (Vardarlier & Zafer 2020).

Indeed, intelligent automation technologies revolutionised the approach to evaluating job applicants and enhanced organisational performance; however, these opportunities bring considerable challenges at a technological and ethical level (Vrontis et al., 2021). Several issues remain unsolved concerning AI technologies' accuracy, moral judgments, legal and privacy implications (Laurim et al., 2021). Although using chatbots in HR activities is becoming widespread, many companies are still reluctant to adopt them for practical utilisation (Upadhyay & Khandelwal, 2018). One such explanation is the adaptation problem of digital tools, which some recruiters might sense as a threat to their roles (Vardarlier & Zafer, 2020; Li et al., 2021). Another point to consider is the higher volume of applications, making the assessment process more complex (Black & van Esch, 2020). Moreover, to guarantee that selection delivers a sustainable competitive advantage, job applicants must be evaluated based on relevant competencies. Without using AI tools, the risk of human bias leading to incorrect judgement may become inevitable (Tambe et al., 2019; Houser, 2019).

This study offers an overview of the current state of chatbots usage in R&S processes. Specifically, it aims to answer the following research question (RQ):

What are the characteristics of a viable chatbot for the purpose of recruitment and selection?

In order to answer this question, we defined the following objectives:

1. Describing how a chatbot is used in R&S.
2. Finding the benefits and challenges for companies and applicants.
3. Identify the potential future R&S domains that could benefit from using chatbots.

The purpose of this study is to answer these questions by doing an in-depth literature review on Chatbot applications in R&S. Review-based studies will assist in meeting these objectives by synthesising current findings and identifying crucial areas that require more investigation. By answering these questions, we seek to give AI and NLP developers valuable insights when creating chatbots for recruiting objectives.

## **2 Methodology**

The process followed for retrieving, selecting, classifying, and analysing studies on chatbots and their use in businesses and, specifically, HR processes are explained as below. We conducted this systematic literature review in accordance with the principles established by Giermindl et al., (2021) and Paré et al., (2016) guidelines. As a result, we (1) developed a review plan, (2) defined and applied a literature search strategy, (3) refined our findings in terms of contribution to our research objective, (4) assessed the quality of the remaining studies in the information systems field, (5) identified relevant themes, and (6) synthesized our findings (Paré et al., 2016). Following the comprehensive literature review, we comment on current technology breakthroughs in the field of chatbot usage in R&S and discuss the possible benefits and risks to companies and candidates as a result.

### **2.1 Retrieving and selecting relevant academic literature**

Scopus and Web of Science were the two academic databases used for retrieving the academic literature on this topic since they are the most used database in bibliometric analysis (Giermindl et al., 2021). The search string used was:

(TITLE-ABS-KEY (chatbot\*) AND (LIMIT-TO (DOCTYPE, "ar"))) AND (LIMIT-TO (SUBJAREA, "BUSI")) AND (LIMIT-TO (LANGUAGE, "English"))

We focused on retrieving academic articles that included the word "chatbot" in title, abstract, and keywords, and also were written in English within the Business, Management and Accounting subject area. From this search, performed in June 2021, we obtained 126 articles. Among these, 109 articles were published from 2019 up to now. The former clearly shows that the interest in this topic is increasing at a fast pace.

A three-step process was followed to filter only relevant studies from the pool of 126 articles. First, we went through the retrieved articles to check for duplicates and eliminate them. Second, we manually screened the title, keywords, and abstract of all documents, considering their contribution to our research goal. We excluded publications primarily related to technical aspects of building chatbots, methods, and algorithms. Also, we excluded papers examining chatbots' use in other business sectors such as customer service or healthcare. Finally, all researchers involved in this study discussed the exclusion of the articles and jointly agreed on the same. Among all the 126 articles, only four papers were selected for content analysis.

To complement the results, we identified and retrieved some other relevant articles using backward searches from reading the selected papers and reviewing their references. Also, the searches in the academic databases were redone in April 2022. This time, we limited the publication date from 2017 to March 2022 in order to focus on the most recent literature, and we retrieved more than 70 relevant references. We grouped the obtained articles into three categories: 1) E-recruitment and Digital HR; 2) AI, Chatbots, NLP and Human-Robot interaction technologies; 3) Chatbots in recruitment and selection.

### **2.2 Retrieving and selecting relevant grey literature**

Since there are few academic articles related to companies using chatbots in the recruitment processes, we decided to expand our search to grey literature. Thus, we decided to use the Google search engine to identify relevant information on this end. First, a search strategy was applied, then results were screened and assessed in terms of our research objectives, and finally, we synthesised our findings.

We used several keywords related to our research questions, such as: "Chatbots use for recruitment", "Chatbots and hiring", and "Chatbots for talent acquisition". We aimed to be as inclusive as possible, which led us to a considerable amount of unstructured data (i.e., reports from well-known consulting firms, references to chatbot companies, and websites with specific content on chatbot usage in HR processes). In fact, the first search term mentioned returned 484,000 results.

Most of the webpages were companies that provide chatbot services for recruitment processes. To review them, we focused on relevant content, such as using AI-enabled applications in recruitment (i.e., chatbot usage and implication in R&S processes). We found relevant data from this search, ranging from recruitment-based companies like LinkedIn and Monster to chatbot providers like HireVue and Inbenta. The chatbots developed by Microsoft and Apple were examined to see how they approach human-robot interaction and ethical challenges. Also, we found some digital articles in which different chatbots were compared and analysed. For instance, AImultiple and topbots.com websites provide in-depth analysis of these technologies. From the media, we covered the second season of the MIT Technology Review podcast "In Machines We Trust", which refers to automated hiring practices. We found interesting case studies about the digital transformation in recruitment and how HR departments use chatbots in their processes. It should be noted that we also reviewed and identified relevant information based on these websites, consulting reports and digital articles references to avoid misleading data.

We believe this approach would broaden the perspective in this area by focusing on both academia and practical usage in business. Based on our research questions, a total number of 95 references were used in this study.

## **3 Findings**

### **3.1 Chatbots or Conversational Agents: Definition and characteristics**

As a manifestation of artificial intelligence, a chatbot is a virtual and autonomous agent that can communicate with humans or other chatbots (Allal-Chérif et al., 2021). These intelligent systems communicate with users in natural language (text and speech) (Jurafsky & Martin, 2020; Adamopoulou et al., 2020). Chatbot development and power are significantly linked to NLP and pre-training the system on large corpora (Roller et al., 2020; Zhou et al., 2020). According to Jurafsky & Martin (2020), chatbots are categorised into two types: 1) Social chatbots, also known as chit chatbots, that simulate human-like communication, and 2) Task-oriented dialogue agents that make conversations with users to help complete specific tasks.

Nowadays, chatbots can act as digital assistants (e.g., Siri, Alexa, Google Assistant, Cortana, etc.), give directions, control appliances, find stores, make calls, and set reminders. These bots often provide entertainment value, such as Facebook's Blender-Bot, a neural chatbot capable of engaging, talking, and showing empathy and personality while maintaining a consistent persona (Roller et al., 2020). Another example is Microsoft's XiaoIce chatbot (Zhou et al., 2020), designed as a companion for humans to satisfy the need for communication, affection, and social belonging for long-term user engagement.

Several researchers have discussed the various technology needs that chatbots must meet to function. Chatbots must be able to perform basic NLP techniques, including tokenisation, language detection, and named-entity recognition, in combination with deep learning concepts (Kvale et al., 2019; Lokman & Ameen, 2019). With these methods and techniques, chatbots can create natural language understanding (NLU) models to encode the user's intent and decide how to respond with a

dialogue manager component (Allouch et al., 2021). To produce a relevant output, the system uses a natural language generation (NLG) component, which is often modelled in two phases: content planning (what to say) and sentence realisation (how to say it) (Jurafsky & Martin, 2020). The chatbot's design options and social presence can vary depending on the company and recruiting strategy. The design should be user-oriented and match the target group's specific information and needs (Schildknecht et al., 2018).

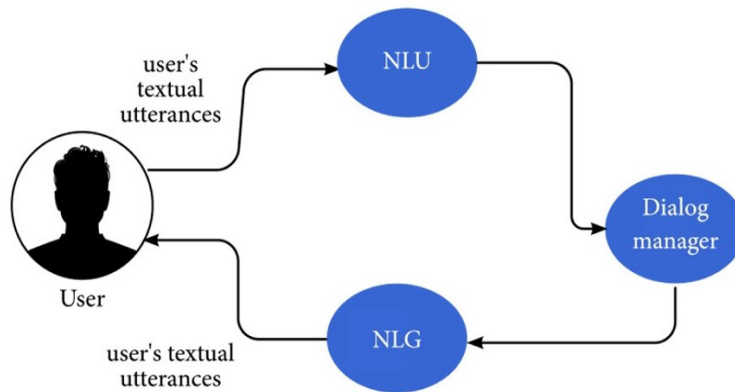


Figure 1. The textual components of chatbots. Source: Adapted from "Conversational Agents: Goals, Technologies, Vision and Challenges," by Allouche et al. (2021, p. 6)

Aside from technical subjects of natural language understanding and generation, excellent chatbots should be aware of human attributes, notice user emotions, give empathy in their replies, and engage the user (Allouche et al., 2021; Bavaresco et al., 2020). While much research on chatbot design focuses on enhancing functional performance and accuracy, the literature has continuously emphasised that the interactional goals of chatbots should also include communication skills (Chaves & Gerosa, 2021). Rapp and his colleagues (2021) suggested that chatbots can be assessed in terms of user experience, satisfaction, engagement, and trust to enhance interaction quality. These authors also argued that beyond the linguistic level of human-robot interaction, where people pay attention to grammar, typing, plausibility, and language style, they also value psychological and interactional factors (such as the ability to lie, be humorous, consciousness, originality, manner, and thoroughness). In sync, sociolinguistics and communication studies, for example, have a lot to offer in terms of chatbot design (Chaves & Gerosa, 2021).

Studies show that viewing the chatbot as having human-like characteristics (such as empathy and self-disclosure) enhances their conversational experience, primarily by encouraging users to feel more "favourable" (in terms of trust, openness, tolerance, and so on) toward the chatbot (Rapp et al., 2021). It is legitimate to conclude that embodied chatbots used in recruitment and selection processes with a sense of humanity can increase candidate experience and satisfaction. One can say that humanising chatbots will improve candidate participation and willingness to apply for the job.

### 3.2 Chatbots' role in R&S processes

Several phases (e.g., planning, sourcing, screening, selection, reference, background check, offering, and onboarding) within the R&S processes have been identified in which AI implications might be helpful. For instance, Hmound & Laszlo (2019) discussed using AI applications in multiple stages of recruitment (see, Table 1). Indeed, each phase requires a distinct use of chatbots that must be customised according to the specific task (Albert, 2019; Nawaz & Gomes, 2019; Kulkarni & Che, 2019).

Stage of R&S	Sub Process domains
Sourcing Workforce	<ul style="list-style-type: none"> <li>- Posting job vacancies in relevant channels</li> <li>- Match jobs with applicants</li> <li>- Address candidates' doubts and questions</li> <li>- Resume information extraction</li> </ul>
Screening and Shortlisting	<ul style="list-style-type: none"> <li>- Classify applicants</li> <li>- Filter suitable candidates from a large volume of candidate pool</li> <li>- Assessment of applicants (i.e. personality test, technical test)</li> </ul>
Selection and Decision making	<ul style="list-style-type: none"> <li>- Interview with technical expert and hiring manager</li> <li>- Predict future performance</li> <li>- Discover implicit knowledge</li> </ul>
Offering decisions and Onboarding	<ul style="list-style-type: none"> <li>- Update rejected candidates</li> <li>- HR allocation to proper positions and projects</li> <li>- Contract for chosen candidates</li> </ul>

*Table 1. Processes to consider based on each stage of the recruitment and selection flow. Source: Adapted from "Will artificial intelligence take over human resources recruitment and selection," by Hmoud & Laszlo (2019)*

Considering that candidates decide to apply for a posted job, they may have more questions about the role, recruitment processes, department, management, company culture, remote working or on-site job location. Organisations can implement chatbots as a form of question-answering system that can be implemented to address repetitive questions from the candidates. From job-seekers perspective, this system allows them to acquire critical information instantly and supports them through the process. Alternatively, recruiters can use the data to improve their postings and understand the needs of candidates and record contact information for follow-up (Nawaz & Gomes, 2019; Schildknecht et al., 2018). Likewise, chatbots can engage multiple candidates simultaneously and work 24/7, which is useful when a company's branches are in different time zones or when there is a lack of human support (Egorov et al., 2018).

Organisations may also use the chatbot to help with evaluations, psychometric testing, and logical gamification. The chatbot can give instructions to complete mini-cases or questionnaires linked to the relevance of job requirements. Likewise, candidates' applications can be graded by machines based on the words used, the tone of their voice, and, in some cases, their facial expressions. In these one-way interviews, candidates hear pre-recorded questions and record their responses in a certain amount of time. HireVue is by far the most important participant in this market, with more than a third of the Fortune 100 customers like Unilever, JP Morgan Chase, Delta Air Lines, and Target (Strong, 2021). This method of assessment and asking open-ended questions to clarify the gap or explain the expertise is similar to phone screening interviews; therefore, it may supplement or replace the phone interview procedure. Candidates can participate in the virtual interview on any day or time convenient for them within a few days. This saves substantial time for scheduling and gives applicants more significant control over their experience (Black & Van Esch, 2021).

After shortlisting candidates, the third step includes technical assessments and cultural interviews to narrow the number of candidates (Black & Van Esch, 2020; Nawaz & Gomes, 2019). A chatbot may be effectively established during this phase for several reasons: scheduling interviews considering empty calendar slots, background checks, and providing immediate feedback (Ergov et al., 2020).



The onboarding phase is the final stage in the recruitment process once the applicant has been chosen and satisfies the requirements. It is a process of providing the new employee with the resources needed to become familiar with the organisation, both socially and professionally. The HR team should perform some repetitive tasks in this phase, such as rejecting the unselected applicants, making the final offer to suitable candidates, creating new employee documents, permitting access to several systems and applications. It can be a problematic situation regarding the vast number of candidates. In this case, chatbots can help selected candidates fit into their role and company with a positive experience (Majumder & Mondal, 2021).

The general application of chatbots enhances the interaction with the candidates at all recruitment stages. Based on the academic papers and companies' study cases, we can summarise the chatbots' role in the recruitment process as in Figure 2.

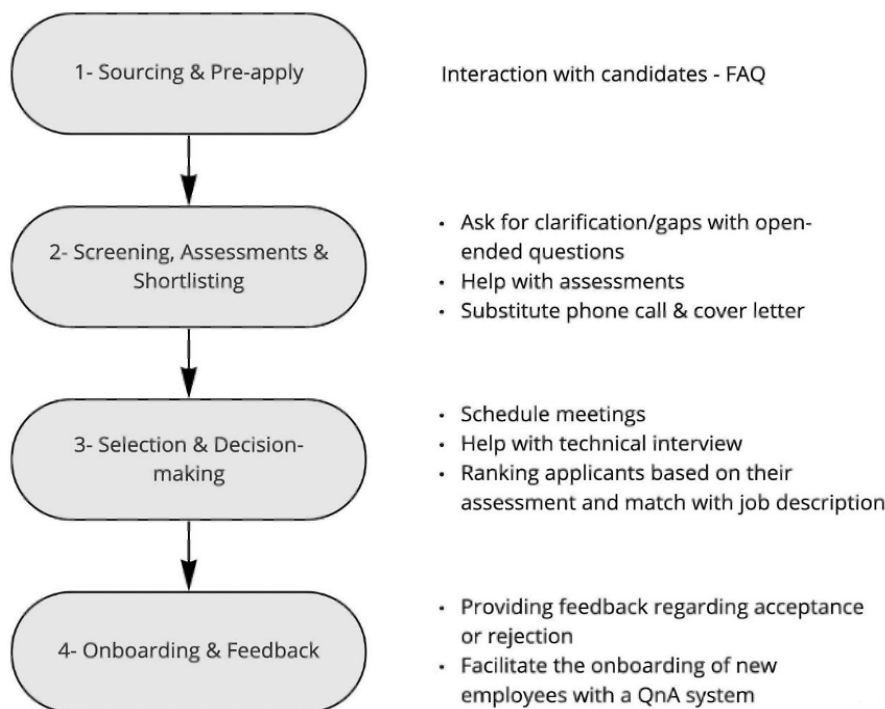


Figure 2. The role of chatbot in each stage of recruitment.

### 3.3 Chatbots' benefits and challenges

Using chatbots in the R&S processes has several benefits:

1. Reaching more candidates and improving their experience. Organisations can optimise the job application process instead of filling out lengthy forms and emails that take too much time. Chatbots can rapidly answer simple inquiries and interactively collect candidate information, particularly in the early phases of the application process (Koidan, 2020). This allows faster screening and a smooth transition to rank candidates based on the criteria. Therefore, recruiters will have a broader and more robust pool of candidates with a strong user experience improved by chatbot technology, allowing them to find and interact with the top talents more rapidly (Dilmegani, 2020) and (Strazzulla, 2021). Moreover, this method will remove unconscious biases such as gender, nationality, and age. By eliminating human discrimination in the selection process,

companies can thrive in their cultural fit and diversity with new hirings (Altemeyer, 2019; Walford-Wright & Scott-Jackson, 2018).

2. Speed up the recruitment process with automation. A chatbot can perform multiple tasks to improve the automation processes, such as collecting information from candidates (e.g., their cover letter, preferred start date, salary expectations), asking screening questions about the candidates' experience and knowledge, ranking candidates (on metrics such as qualifications, engagement, or recent activity), answer FAQs about the job and the application process, and schedule an interview with a human recruiter (Cedex Team, 2021). Organisations can collect this information from thousands of candidates at the same time. Over time, the chatbot's machine learning component will learn which metrics to look for depending on the data it collects and will rate applicants appropriately (Dilmegani, 2020).

3. Increasing engagement with 24/7 accessibility. Nowadays, candidates understand that they might not interact with humans in the recruiting process. In these touchpoints, the value comes from information exchange (Strazzulla, 2021). Chatbots can contact candidates through desirable channels and, for instance, explain the entire recruiting process to them (Koidan, 2020). It can also demonstrate a positive pre-employment attitude from the company side due to technological services (Van Esch et al., 2019). These simple tasks can increase transparency with structured and documented candidate communication.

Although chatbots may offer some benefits for companies, they could also bring some risks to the table. Some companies point out some exciting challenges they need to overcome. Below, we are going to offer an overview of those challenges.

1. Lack of Empathy. Although advanced technologies power chatbots, they fail to understand basic cognitive behaviours like emotions, humour, or sarcasm. Laurim and her team (2021) mentioned that some applicants prefer to answer questions on the phone or in an interview rather than interacting with a chatbot because they stress out that AI only focuses on what words they use. Due to the current technological level, it remains complicated for chatbots to offer more human understanding, recognise specific sentiment qualities, and deal with humour. (Canhoto & Clear, 2020).

2. Language capabilities. Chatbots need to have strong language perception skills to understand candidates better and treat everyone fairly (Dilmegani, 2020). However, each person has a unique style while conversing, making it difficult for chatbots to respond accurately.

3. Decision-making capabilities. As AI-powered chatbots get trained from data, they sometimes fail short in places where they have to make decisions independently. A low-quality chatbot may struggle to answer common inquiries or reply improperly. This would be far more damaging to the company brand than depending on traditional communication methods (Dilmegani, 2020).

## **4 Discussion**

Digital recruitment is continuously evolving; thus, hiring professionals need to modify their approaches and learn how to utilise modern tools (Allal-Chérif et al., 2021). AI-enabled recruitment tools can go beyond the traditional processes and understand possible behaviours regarding job fit and soft skills while being more objective and less biased than humans (Vrontis et al., 2021). Therefore, organisations are expected to increasingly deploy AI (e.g., Chatbot) to make evidence-based decisions in their recruitment processes. In all these processes, a chatbot will act as an assistant who is responsive 24/7, takes care of most repetitive tasks, and offers an exciting experience. This technology provides a positive, dynamic and innovative picture of the company. However, there are arguments about acquiring and proceeding with candidates' data that raise issues of privacy and ethical challenges.

This research covered various aspects of state-of-the-art technologies utilised in the recruitment and selection processes. The main focus was on why and how to use AI applications to facilitate the

recruitment process for HR professionals and organisations. We provided a foundation study for research directions of AI chatbots in recruitment for companies and higher education institutions.

While this study delivered meaningful insights, it reflects possible limitations. First, the literature review, although it was meant to be inclusive, cannot be considered exhaustive. When integrating technology with business functions, both areas must be comprehensively evaluated. Hence, the findings need to be validated for future research involving hiring experts in order to get a complete view of chatbot utilisation. Secondly, because the emphasis of this study was on texting chatbots, the literature on voice-based conversational agents was excluded. Further study is necessary to focus on limitations to improve the resilience of chatbots to meet organisational demands.

Regarding chatbot development for any organisation, the challenges would be related to training the bot and continuous refinement. New data for training the chatbot will enhance NLU and dialogue management quality. Chatbots can provide responses exclusively if the data is already available. The lack of historical data leads to the limitation of proper answers and the performance of chatbots. Therefore, the input data should be refined based on candidates' questions. This ongoing review and optimisation would be a drawback for recruitment chatbots at the early stages of implementation. Another point to consider for future work is to make multi-lingual bots that are able to interact in many languages. It can also recognise the users' voices and respond with text-to-speech capabilities.

## **5 Conclusion**

According to our findings, the technologies used to implement chatbots are becoming more accessible to all organisations. This makes it possible for the HR departments to consider a larger pool of candidates because each individual becomes a potential recruit, even without actively searching for new roles. In the post-Covid era, companies have the ability to use this technology to interact more easily with the candidates and bring a remote engagement which would be beneficial for both parties. While companies can improve hiring diversity, increase candidates' retention rate and make the recruitment process more enjoyable, there are some challenges to consider when implementing a chatbot. We can advise organisations to bear in mind that chatbots' technical requirements and social communication come as critical points. Their chatbot needs to be trained on extensive data to have the ability to answer a wide range of questions. On the other hand, since interviews can be stressful for candidates, chatbots ought to provide empathy and support through this process.

It is notable to conclude that chatbots are not intended to be a solitary channel for communication. Instead, they should be employed as a support method to deal with a large number of candidates with 24/7 accessibility, mainly when there is a lack of human resources. While chatbots need low maintenance, they still require monitoring, training, and support. Our study demonstrates some potential uses for chatbots in this era, as well as opportunities for both academics and developers to conduct more profound research in this area.



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