

Artificial Intelligence in Employee Recruitment

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Abstract: Currently, in the HR industry, there is a great demand from recruiters to streamline and speed up the processing process. This is primarily due to the fact that there are more and more well-matched employees, they are increasingly well-matched, and HR is not only present in the current composition, but is often reduced. Talent acquisition leaders use ways to streamline or automate the work of their recruiting resources. The answer to such an expectation is an artificial intelligence application that, based on checking, works in activities such as reviewing CVs and in chatbots it detects in reality (Müller, 2022).

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1. Candidate Verification Tool

Although artificial intelligence in recruitment cannot yet fully replace humans, it saves their time in the initial phase of candidate verification - the most time-consuming - by automating processes and conducting data analysis. The use of AI allows you to create a model of an ideal candidate for a given position, and in the next step to compare complex applications. It also gives the possibility of remembering specific features and creating candidate databases to match them to the profile in future recruitment processes. Thanks to this, recruiters can focus on interviews with selected candidates.

Artificial intelligence can also be programmed to check the reliability of information contained in candidates' CVs by exploring available data sources and public social media profiles. What's more, it can automatically deliver surveys that verify the candidate's declared skills.

More complex programs can predict the further fate of potential employees based on their previous professional career. Artificial intelligence can assess which candidates and with what experience, competences and character traits met the hopes placed in them. The recruitment process using online tools supported by modern IT solutions significantly accelerated during the COVID-19 pandemic, when many processes moved online. This is also one of the reasons why artificial intelligence has become more important in the automated online recruitment management systems, called ATS for short, which have been developed for several years.

As the following data shows, in the opinion of recruiters, artificial intelligence has become an indispensable tool in their work, primarily saving time, reducing costs and facilitating communication.

2. Use of Chatbots and Digital Interviews

As previously mentioned, one of the main reasons why the use of artificial intelligence in recruitment is growing rapidly is the competitive pressure associated with the increase in the number of recruitments at the same time, with the tendency to reduce recruitment teams. Recruiters say they have an average of about 6 seconds to review a single resume. This is by no means enough to fairly evaluate a candidate for an employee. The implementation of the process with the participation of AI allows, based on the algorithm used for CV analysis, to eliminate up to 75% of applications that do not meet expectations. This significantly shortens the time of the initial selection process, which takes the longest using traditional methods. It may take even a few days for an HR employee to go through hundreds of applications, and a specialized program will do it in a few moments.

In the next stage, advanced chatbots using AI to acquire, select and conduct interviews with candidates in real time, with whom they interact via chat on the website, in dedicated applications and messengers or in social media, come to the rescue. They ask questions according to job requirements, suggest next steps, and send information about the company or position for which the candidate is applying. Based on the candidate's data and skills, they present available employment options.

The most famous recruitment platform based on artificial intelligence is HireVue. It has been implemented in 700 companies, the most famous of which are Unilever, Vodafone, PwC and Oracle. Thanks to its application, recruitment time is shortened by 90% and employment diversity is increased by 16%. In addition to voice and facial recognition software, HireVue has its own algorithm that determines which candidates are ideal for a particular job by analyzing their vocabulary, speech patterns, body language, tone and facial expressions.

Another example of the use of a chatbot in recruitment is Mya Systems, which uses conversational artificial intelligence to streamline the recruitment process for large recruitment agencies and companies such as L'Oréal, Adecco, Hays and Deloitte.

Mya accompanies candidates throughout the entire recruitment process, from job search to employment. It ensures a natural interaction with candidates, using a state-of-the-art natural language processing application and dynamic dialogue management.

Another example of the use of artificial intelligence in the recruitment process are digital interviews. In these solutions, AI can select candidates based on the candidate's speech analysis. Based on words and intonation, it can determine his personality, commitment, sincerity or communication skills. It also has the ability to assess emotions and personality based on the analysis of facial expressions during a video interview. This facilitates the process of verifying candidates. Facial expression analysis comes from two sources:

- a photo attached to the CV,
- during a video interview.

Of course, not every candidate includes a photo of themselves on the CV (although in some countries it is not only frowned upon, but even disqualifies the candidate), but otherwise it can be a powerful tool to show the recruiter what the candidate's personality traits are. Professionals know this, and even in countries where a photo is a contraindication, they attach it to their LinkedIn profile, so we can expect the worldwide use of facial expression analysis systems in the near future and on a large scale in the recruitment process.

In the case of a remote interview, e.g. when the recruiter talks with the candidate via Skype, he receives constant feedback from the AI algorithm on the candidate's behavior and mood throughout the conversation. The recruiter knows how the candidate feels, whether he is relaxed or stressed, and even whether he is telling the truth about himself and his career so far. Artificial intelligence can check the social media profiles of selected candidates and verify that all information provided in the CV is consistent. It can also look for signs of activity that is inconsistent with company policy, such as racism or xenophobia, or vice versa, as an added asset, demonstrate that the person is involved in charity work, which can earn them extra points in the recruitment process with a new employer.

In addition, artificial intelligence does not have the human handicap of more or less conscious prejudices that can affect many aspects in the hiring process. People tend to stereotype and make unconscious choices based on gender, ethnicity, and even appearance. Artificial intelligence can even be programmed to ignore a candidate's past. An example of this is Google, which in 2015 started using an internal recruitment tool called qDroid, which provides interviewers with more credible interview questions.

3. Passive Candidates - Hunting for Talents

So far, in the traditional recruitment process, recruiters could only choose between candidates who were interested in changing jobs and answered the advertisements themselves. However, it turns out that 75% of potential candidates are passive candidates. They do not respond to offers, do not visit job sites and do not respond to recruitment campaigns. Maybe they don't even think about changing jobs. Artificial intelligence can search for them and then analyze their activity. Assess whether a given passive candidate is ready for a change and whether it is worth suggesting a change of employer.

The competition for the best talent is getting fiercer. Determination in acquiring the best has increased even more during the pandemic. Randstad Risesmart UK surveyed HR leaders from 85 organisations, 65% of whom said they needed the best people in their organizations to help them rebuild after the pandemic lockdown. The ability to find and employ the best professionals has become a competitive advantage.

However, before the artificial intelligence algorithm analyzes 60 million profiles on LinkedIn, it is necessary to create an ideal pattern to which the data of potential applicants can be matched. An appropriate algorithm allows you to create a model profile of a candidate for a position. Taking into account specific variables, individual candidates can be compared with each other, not by carrying out this process manually, but by giving the opportunity to make a selection through a properly programmed tool on the computer supporting the HR department.

In this race to find and retain the best talent, HR professionals are turning to the vast possibilities of artificial intelligence, and more specifically, talent intelligence.

4. Summary

As presented in the article above, artificial intelligence significantly improves the recruitment process and seems to be an indispensable support tool for HR departments in modern companies at the current technological stage. It is also able to analyze data sets much faster than a human, and in addition it is devoid of prejudices and stereotypes, which are typically human characteristics. Only candidates' competencies and skills are assessed. It is invaluable that AI can work 24 hours a day, 7 days a week, without stress and fatigue, and the data contained in thousands of CVs can be analyzed in no time, while this process would take several weeks for a large team of recruiters. Thanks to the use of AI in recruitment, HR specialists have gained another very important area of activity - the possibility of acquiring passive talents from the market, which in the traditional process required a lot of time and skills on the part of headhunters.

The latest trends indicate that within a few years all the largest corporations and HR companies will implement AI algorithms or applications in their businesses. However, the question remains whether there will be a moment when artificial intelligence will take over the entire recruitment process. Everything indicates that still - at least in the final stage of recruitment - recruiters do not have to worry about being driven out of the market by robots.

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