

ARTIFICIAL INTELLIGENCE IN THE RECRUITMENT AND SELECTION OF EMPLOYEES WORLDWIDE VS. ROMANIA

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Abstract: *In this era of globalization, an organization must thrive and survive in the global economy. Every employer of the organization or manager of public institutions must promote and practice the recruitment and selection process in a way as close to perfection as possible. The success of the organization or a public institution itself depends on qualified employees and is directly related to the performance of the organization.*

A proper recruitment and selection process is the lifeblood, like capital, of any public organization or institution. The eminence of human resources depends on the effectiveness of real recruitment and selection procedures. The purpose of recruitment and selection is to bring to the surface qualified candidates for the organization.

The main goal of all employers is to select qualified candidates from the alternative group of qualified candidates for a particular job. All activities of the recruitment and selection process are carried out by the human resources department of an organization. These processes vary from one organization to another. Traditional sources are employee recommendations, transfers, promotions, presentations, and advertisements. However, the recruitment process differs from organization to organization. In the modern economy, the recruitment process is changing drastically with the advent of social networks.

The second stage of the workforce planning process is selection. It is the process of choosing the most suitable candidate who corresponds to the knowledge, skills, abilities and requirements of the job. In the case study, we make critical assessments on how to select the person suitable for the given position and for the development of the organization or public institution. In Romania it is necessary to develop new methods using technology through artificial intelligence.

Keywords: *recruitment; selection; artificial intelligence in recruitment; e-recruiting*

JEL Classification: *M12; M15; M51; M59*

1. Industrial Society (Society 4.0) and Information Society (Society 5.0)

1.1. Industrial Age 4.0 (Society 4.0)

1.1.1. Importance of the Fourth Industrial Revolution

While the Fourth Industrial Revolution (called 4IR or Industry 4.0) is poised to change society in a rather inventive way for humanity, it is based on the first three industrial

revolutions. The advent of the steam engine in the eighteenth century led to the first industrial revolution, enabling the mechanization of production for the first time and driving social change as people became increasingly urbanized.

In the second industrial revolution, electricity and other scientific advances led to mass production. A third industrial revolution, beginning in the 1950s, saw the advent of computers and digital technology. This led to increased automation of production and disruption of industries such as banking, energy, and communications. (Foote, 2021; Tarpey, 2020)

1.1.2. Who Created the Term Fourth Industrial Revolution?

The person who laid the foundation for the current progress and developed a new revolution was Klaus Schwab, founder and executive chairman of the World Economic Forum and author of "A Fourth Industrial Revolution". In a 2016 article, Schwab wrote that "like the revolutions that preceded it, the fourth industrial revolution has the potential to raise global income levels and improve the quality of life for populations around the world." (Schwab, 2016)

He continued: "Going forward, technological innovation will also lead to a supply-side miracle, with long-term gains in efficiency and productivity. Transportation and communication costs will fall, logistics and global supply chains will become more efficient, and trade costs will fall, all of which will open new markets and stimulate economic growth." (Schwab, 2016) It is important to remember that not all of this is good news. Schwab also suggested that the revolution could lead to greater inequality, "especially in its potential to disrupt labor markets." (Schwab, 2016) The labor market may become increasingly segregated into "low-skill/low-wage" and "high-skill/high-wage" roles, which could exacerbate social tensions.

According to Schwab, the changes are so profound that, from the perspective of human history, there has never been a moment of greater promise or potential danger than now.

1.1.3. Industrial Technologies 4.0

The easiest way to understand the Fourth Industrial Revolution is to focus on the technologies that drive it. (Stăncioiu, 2017) These include the following:

- a. artificial intelligence (AI);
- b. web 3;
- c. blockchain;
- d. faster computer processing;
- e. virtual reality (VR) and augmented reality (AR);
- f. biotechnology;
- g. robotics;
- h. Internet of Things;
- i. 3D Printing.

1.2. Information Society (Society 5.0)

The most comprehensive discussion and research recently promoted by the Japanese government is "Society 5.0". Society 5.0 is used to emphasize Japan's unique position and role in developing the challenges of digitalization and

networking. The term was mentioned in the 5th Basic Plan for Science and Technology in January 2016, with explicit reference to the Internet of Things (IoT) initiatives in the United States, Germany, and China. Of course, it should be emphasized that IoT has become one of the most developed technologies of the XXI-th century because it can connect the objects we use in everyday life (house robots, household robots, accessories for children) to the Internet through built-in devices that allow communication between people, processes and things.

The transition to Society 5.0 is seen as similar to the "Fourth Industrial Revolution" because both concepts refer to the current categorical shift of the economic world towards a new paradigm. However, Society 5.0 is a broad concept because it envisions a complete transformation of the way we live.

The main goals of Society 5.0 are to improve the living environment and increase the quality of life. Society 5.0 is based on digital infrastructures, platforms and services. The technologies mentioned in section 1.1.3 have now reached an advanced level of maturity.

In the face of such major changes in the world, new technologies such as IoT, robotics, AI, and big data are being developed, all of which can affect the course of society. Japan is striving to realize Society 5.0 as a new society that incorporates these new technologies into all industries and social activities, achieving both economic development and solutions to social problems in parallel.

The four pillars of Society 5.0 are:

- Health;
- Mobility;
- Infrastructure;
- FinTech.

2. Artificial Intelligence and Human Resource Management

2.1. Artificial Intelligence (AI)

The long existence of artificial intelligence (AI) with a number of applications over time, but recently it has been developed and implemented. It is necessary to decompose the word AI and analyze the meaning of each word.

The definition of "A", which means artificial, is a universal term, so it does not need such a broad definition. Artificial, according to the Oxford Dictionary, is "something created or produced by human beings rather than occurring naturally, especially as a copy of something natural". (Oxford Dictionary, which is, 2019) Another aspect of the artificial definition is the need to evaluate human intelligence in order to be successful compared to that of the robots or machines that are replacing them.

Kaplan (2016) instead states that his personal interpretation of intelligence would be that it is "the ability to make appropriate generalizations in a timely manner, based on limited data" (p. 5). In this article, AI is defined as the ability of machines to learn, interpret, and understand on their own, similar to humans. (Coursera, 2023; Miaihle & Hodes, 2017; Johansson & Herranen, 2019).

There are areas in which AI can be applied, and it can take many different forms. Furthermore, there are five main areas of AI implementation:

- language interpretation;

- machine perception;
- problem solving;
- robotics;
- games.

3. Recruiting

3.1. Traditional Recruitment Process

The first step in the traditional recruitment process is to identify vacancies, set budgets for hiring new employees, integrate them and train them. The entire process involves analyzing the job, writing a job description, posting it on various platforms such as newspapers, social media platforms, career portals or online job boards, etc. to attract potential employees.

The traditional recruitment process follows the following stages: Bhosale (2023), Johansson & Herranen (2019):

- recruiters collect resumes, select their relevant profiles and further contact the right candidates for further discussion;
- check references, check antecedents, offer selected candidates, notify candidates who have not passed the interview, prepare and conduct employment activities;
- This method emphasizes receiving as many resumes as possible and building the database to be used when needed.
- The traditional recruitment process has the following characteristics:
- human-centered approach;
- time and labor intensive;
- bias and subjectivity.

3.2. The Recruitment Process

This process has the following characteristics (Morgan, 2023; Mobarack et al., 2021):

- it is a process of discovering and attracting qualified people;
- the process of generating a group of individuals who want a job within an organization;
- is the point of collection of labor and selection of the right people to achieve the overall strategic goals;
- the organization follows recruitment practices and policies to identify and attract potential employees;
- recruitment is explained as a set of activities and processes used to legally obtain a large number of qualified people at the right place and time to work;
- the purpose of recruitment is to attract the number of suitable and qualified candidates at the lowest possible cost to meet the needs of the organization.

3.3. Techniques and Types of Recruitment

3.3.1. Referral

Referral is when existing employees recommend candidates for an open position. Not only do referrals have a high probability of success for the candidates, but they

are also cost effective because it eliminates the need for candidates and requires less intensive screening. (Newsome, 2023)

3.3.2. Promotions and Transfers

Promotions and transfers occur when an existing employee is promoted to a higher hierarchical position in the organization or public institution. These recruitment methods capitalize on the internal knowledge base while strengthening the organizational culture. They demonstrate a commitment to employee development. (Newsome, 2023)

3.3.3. Attracting Candidates

The first stage of the recruitment and selection process includes the attraction phase. Chapman and Mayers (Chapman et al., 2015) emphasize its critical role in a series of systems, processes, and strategies designed to maximize the size and quality of the applicant pool.

Attraction is not the same as recruitment, especially in today's digital age. Recruitment is broader and includes many different elements that are important to the entire selection process, such as the various activities that organizations undertake to identify a desired group of candidates, including what is intended to be their attraction and retention. (Abbas et al., 2020)

Recruitment should also be aligned with the strategic objectives of organizations. Therefore, especially today, it must include all technology-related activities that influence the recruitment and selection cycle, such as employer branding and candidate experience.

It has been observed that organizations advertise their vacancies electronically, in the written press and through various other media channels to attract different types of candidates to the said organization.

3.3.4. Staffing Agencies

A contracting agency, also known as a labor broker, is an organization that contracts the responsibility of recruiting employees for an organization in exchange for an agreed upon fee. (Florea, 2014; Kempton, 2023) This arrangement is very effective in recruiting the most competent type of people for different types of jobs.

3.3.5. Inbound Recruitment

Inbound recruitment is the process of creating content that attracts candidates and compels them to apply for a job (as opposed to external recruitment, which involves contacting candidates). Inbound recruitment strategies include blog posts, videos, employee testimonials, and employer branding efforts. While inbound recruiting produces strong candidates, it is likely to take a long time for them to bear fruit and for your organization to grow.

3.3.6. Social Media

About 80% of US adults use social media. For them, but also for other citizens in general, it is an excellent place to discover available jobs. Social networking is a form of inbound recruitment where content is created to attract potential candidates to interact with what they want. Just like other forms of inbound recruitment, social networks are like an advanced game and ideally work in moments that are engaged and taken can build a solid audience by creating content on an ongoing basis.

3.3.7. Job Fairs

Career fairs and other events for job seekers are ideal for the opportunity for employers to meet their employees. In addition to recruiting for your current open positions, they can help you build your employer brand and attract high-potential candidates. Although there is a fee for employers to attend career fairs, they are a way to quickly find available and often well-educated candidates.

3.3.8. Professional Events

Conferences, trade association meetings, and other industry-specific events can help employers connect with good candidates in a particular field. They are a good way to meet passive candidates - candidates who are not necessarily looking for a job but may be interested in new opportunities.

3.3.9. Internships

Internships are used not only to help students gain experience, but also to help employers cultivate a group of young talents for the long term. For best results, internships should be well structured and involve participants in a range of activities within the company or public institution. This allows employers to identify the strengths of their trainees while helping them to focus on their areas of interest.

3.3.10. Labor and Trade Union Services or Offices

Labor offices around the world have a system of trade unions, which is very necessary in recruiting different types of labor and also in meeting different types of labor requirements of different types of organizations in the business field, mainly in the construction industry as well as in the printing industry. (Keshav, 2013)

3.3.11. E-Recruitment

The characteristics of e-recruitment are as follows (Okolie & Irabor, 2017; Ptel, 2020):

- the HRM domain has been affected by technological advancement;
- online recruitment, which can also be referred to as e-recruitment, has been a major trend in HRM in terms of automating the recruitment process and various HR tasks such as HR assessment and HR rewards;

- companies have turned to online recruitment because it is faster, cheaper and more efficient to find a potential candidate through online recruitment;
- a disadvantage of using online recruitment is the possibility of discrimination between active Internet users and non-Internet users;
- it is a method used by human resource professionals to support the recruitment process by using web-based technology or tools;
- it is an automated process of tracking, attracting, interviewing and hiring candidates through the use of online and human resources software.

In the case of e-recruitment, it can take several forms:

- companies can use a set of credible goals and criteria through an automated system;
- if the candidate applies for a specific position in the organizational chart, the human resources specialist creates a job position in a web-based career portal or in the institution's Internet portal. This process starts when the candidates apply for the given position;
- another important aspect is the fact that e-HR gives candidates more employment opportunities and results in a greater flow of information;
- the e-HR system includes additional applications, such as specialized selection tests, knowledge tests and personality tests. They provide recruiters with the necessary feedback online.
- use of the applicant tracking system;
- online interviewing can be done via Internet;
- using job boards assumes that job boards are sites used by recruiters to specifically advertise job openings;
- new methods are possible that also have benefits that recruiters use to recruit potential candidates.

Advantages of electronic recruitment:

- it shows us that it reduces precious time and we can use it to solve other situations;
- minimizes recruitment costs, which are usually high in terms of advertising, travel expenses, recruitment fees to the third person;
- expands the range of candidates;
- disadvantages of electronic recruitment;
- a role is confidential to a candidate.

In e-recruitment, candidates' reactions to the online system are influenced by the perceived efficiency and ease of use of the applications and whether or not the candidate sees the job advertisement and whether or not it is easy to design and apply.

In the wake of the COVID-19 pandemic, e-recruiting has become a widespread technique of labor supply. As nations around the world face social distancing measures, most companies are using technology for all possible business activities, including recruiting. (Ptel, 2020)

Let's see how technology and electronic platforms are being used for recruitment.

3.3.12. Electronic Application System

Although companies and some public institutions widely use electronic applications, it has become common practice after the COVID-19 pandemic. Most companies use electronic systems. These systems allow applicants to fill in the application form and submit all the required documents. (Okolie & Irabor, 2017).

3.3.13. Electronic Advertising

Electronic advertising presents two major platforms, which are e-recruitment portals and social networks. COVID-19 has developed recruitment websites such as Monster, Career Builder, Glassdoor, etc.

Many business and professional sectors use these platforms to reach potential candidates. For a small fee, these platforms allow companies to advertise and help attract thousands of candidates from around the world. The use of e-recruitment has made recruitment processes more effective, leading to improved business and organizational efficiency. Overall, this is a common practice for international and multinational organizations and has become a widely accepted practice for small and medium sized businesses.

4. Chatbot AI in Recruitment

In this fast-paced world where technology is constantly advancing, the recruitment landscape has undergone a major transformation. With the development of artificial intelligence (AI), traditional recruitment methods are now facing stiff competition from artificial intelligence-based chatbots, often referred to as AI recruiters. These innovative tools have revolutionized the way employers find and hire potential talent, promising faster and more efficient processes. (Asad, 2023; Bhosale, 2023)
Amid this paradigm shift, it becomes crucial to understand what exactly AI recruitment entails.

4.1. What is AI Recruitment?

AI recruitment, also known as artificial intelligence-based recruitment or automated recruitment, is the use of artificial intelligence and machine learning algorithms to streamline the various stages of the recruitment process. These AI-based systems can handle tasks such as sourcing candidates, evaluating resumes, conducting initial screenings, and even engaging with potential hires.

The main difference between AI recruiting and traditional recruiting is the level of automation and efficiency. AI recruiters can process large amounts of data in a fraction of the time it takes a human recruiter. They can analyze resumes, identify relevant skills, and match candidates to job requirements with exceptional transparency.

4.2. What Are the Benefits of Using AI Chatbots for Recruitment?

AI chatbots are transforming the way companies find and interact with candidates, resulting in a more efficient and sustainable talent acquisition process.

Here are some of the benefits of using AI chatbots for recruitment:

- speed and efficiency;
- enhanced candidate experience;
- reduced bias;
- cost effectiveness;
- continuous learning.

4.3. What Are the Challenges of Using AI Chatbots in Recruitment?

While there are challenges to using AI chatbots for recruitment, their many benefits make them an indispensable tool for modern HR teams. These benefits include:

- embracing change;
- perfect integration;
- fairness and diversity;
- enhanced candidate experience;
- robust data security;
- improving human decision making;
- long-term investment.

By accepting challenges and actively addressing them, companies and public institutions can harness the power of AI recruiters. It is beneficial to observe AI chatbots as a supportive partner, enhancing HR capabilities and promoting an effective talent acquisition process.

4.4. What Is the Future of AI Chatbots in Recruitment?

The future of AI chatbots in recruitment is bright. As the technology continues to advance, these intelligent tools will offer personalized interactions and improve their ability to accurately match candidates with job requirements.

AI chatbots will become an integral part of the recruitment process, significantly reducing time to hire and improving the overall efficiency of HR teams. By adopting this technology, companies will gain a competitive advantage in securing top talent and creating a positive experience for candidates.

As AI chatbots continue to evolve and learn, their role in talent acquisition will grow, revolutionizing the way companies find and hire the best candidates in an increasingly competitive job market.

4.5. How to Choose the Right AI Chatbot for Your Recruitment Needs?

Choosing the ideal AI chatbot for your recruitment needs is a critical decision that will significantly impact your hiring process. To ensure you make the right choice, you need to consider the following factors:

- customization;
- integration capabilities;
- data security measures;
- performance and accuracy;
- continuous learning capabilities;
- support and training.

By carefully considering these factors and thoroughly evaluating the features of different AI chatbot solutions, you can find the right recruiting partner that aligns with your company's goals and streamlines your hiring process for optimal results.

4.6. What Is the Impact of AI Chatbots on the Recruitment Industry?

AI chatbots are transforming the recruitment industry. As companies and public institutions realize the benefits of fast and efficient hiring processes, the demand for AI recruiters is likely to increase. While AI chatbots cannot completely replace human recruiters, they will undoubtedly become an integral part of the recruitment process, enabling companies to find and hire the best talent more effectively.

In conclusion, AI chatbots or AI recruiters represent a revolutionary solution to the inefficiencies of traditional recruitment methods. With their ability to quickly and accurately find, assess, and interact with candidates, AI chatbots are changing the recruitment landscape.

As the technology continues to evolve, the adoption of AI chatbots in recruitment will be critical for companies looking to stay ahead in the competitive hiring market.

4.7. Selection

Selection has the following important characteristics.

Selection occurs after potential employees have been recruited into an organization, where the best candidate is considered from a group of available applications. In general, it is a type of process-oriented activity in which various types of techniques and methods are used to select the best candidate from the list of applicants.

Selection can be considered as one of the processes in which employers try to find the type of person who is most suitable for a particular type of job in the mentioned organization by fulfilling all the desired criteria. This is an important aspect in the field of organizational effectiveness and efficiency to maintain the space and quality of organizational efficiency.

Selection ensures the probability of selecting the right type of candidates and it is a general fact that when the right candidate gets the right job, then organizational efficiency and productivity are developed. (Kumar & Gupta, 2014; Abbas et al., 2021).

Selecting the right employees is important for three reasons:

- a. performance;
- b. cost;
- c. legal obligations.

4.7.1. Essential Elements and Prerequisites for Selection:

- I. Selection of individuals with relevant qualifications.
- II. Matching job requirements with the candidate's profile.
- III. Using various tools and techniques to find the right candidate for success in the workplace.

4.7.2. Selection Methods

CV and E-Recruiting

In the academic literature, several reviews appeared on the selection of personnel. They point out that biographical data in the form of CVs are the most widely used in personnel selection. Some researchers even suggest that every selection decision should include an evaluation of biographical data. (Mogridge, 2019)

A CV is a structured professional profile that presents an applicant's strengths, accomplishments, interests, skills, and experiences. CV pre-screening is a key stage in the recruitment process. Recruiters use information from the CV to draw conclusions about the candidate's skills, motivation, personality, and suitability for the job. The CV is a critical tool for evaluating the candidate for a job.

Interviewing

The interview process is probably one of the most common methods used in the selection of candidates. Different types of situations can be considered in terms of obtaining available information from candidates during interpersonal communication. (Abbas, 2021; Newsome, 2023)

There are several types of characteristics of an interview process:

1. Candidates can be better assessed after a round of well-structured questions.
2. Sometimes excessive weight can be given to different types of unfavorable situations.
3. Sometimes the stereotypical nature of the interviewer can influence decisions.
4. In some cases, it is noted that the interviewer finishes the official interview at a much earlier stage of the interview and the rest of the time is used to find more relevant information about the candidate.
5. In some cases, favorable information may be overwhelmed by the presence of a large amount of unfavorable information.
6. It has been found that the efficiency of such types of interviews is relatively high with a higher number of vacancies.

Types of interviews

A. Electronic Interview (IE)

The COVID-19 pandemic has also made electronic interviewing (IE) a common practice, and companies often use it to select individuals. With the social distancing measures in place, companies could not invite candidates for face-to-face interviews. The report of the survey on remote interviews conducted during the COVID-19 pandemic crisis highlighted the important use of the process. Online interviews are also beneficial in the health sector, which is generally considered to be a sensitive sector and requires careful consideration to hire the best candidates.

B. Phone Interview

Candidates whose phone screening indicates a strong match move on to the interview round, which is the deepest part of the selection process. Interviews consist of one or more interviews, usually face-to-face, with decision-makers. They cover every aspect of a candidate's qualifications, including specific work experience and performance in previous roles. While interviews have their shortcomings (such as selection bias), they are generally the best tools recruiters have for evaluating candidates.

C. Group Interview

A group interview is conducted when a candidate is interviewed together with other candidates. These interviews can save time and allow recruiters to see how candidates interact with others.

D. Panel Interview

In a panel interview, a candidate speaks to several interviewers at the same time. Panel interviews are useful when multiple decision makers need to be involved. This type of interview helps the employer see how a candidate performs under pressure and what they have to offer.

Personality Assessment

A personality assessment aims to identify a candidate's characteristics beyond his or her technical skills, such as communication style and work preferences. Although personality assessments do not have "right" or "wrong" answers, they can be useful in focusing strong candidates for positions where certain personalities are more likely to succeed, such as sales and customer service roles.

Job Simulation/Job Audition

In a simulated task or job audition, a candidate performs a task that is similar to the work he or she would do in the actual job. One of the biggest pitfalls in hiring is that we can't really see how a candidate performs until they're in the job; simulated tasks are the closest we can get to seeing a candidate's skills before we commit to hiring them.

Forms of Verification

A. Reference Checks

The purpose of checking references in any organization is to cross-analyze the different types of information a candidate has provided in the information sheet or resume, and also to have knowledge of his or her behavior in the different types of organizations for which the person has worked. In most public sector organizations, reference checks are conducted before short-listed candidates are interviewed.

B. Background checks

Background checks are less about selecting the right candidate than they are about preventing the wrong candidate from being selected.

The physical examination can be considered an important test that has become a requirement in many organizations. The nature of such information can vary from a simple type of physical examination to a very evaluative type. The main purpose of such a physical examination is to test the different types of physical abilities of candidates and to protect companies from unethical and unreasonable health claims by employers. In the process of selection and recruitment, different types of physical examinations have a vital role in the completion of candidates. The appropriate type of physical examination provides a clear picture of different types of physical and mental situations.

4.8. Screening Technology

The second stage of the process includes the selection of available information about the candidate's suitability for the position.

4.8.1. Applicant Tracking System (ATS)

What is an ATS?

The hiring process can be a long and frustrating experience for both employers and job seekers.

In order to streamline the process, companies began using applicant tracking systems (ATS). (Nzenze, 2023; Henderson, 2023)

An ATS is a computer program that manages the hiring process. It does this by collecting and sorting thousands of resumes.

Hiring managers can then use the ATS to select candidates and track their progress through the hiring process. By digitizing the hiring process in this way, an ATS saves employers time and money.

How Applicant Tracking Systems Work

There are 4 basic steps to how an applicant tracking system works:

1. A job application enters the ATS. This request includes job information such as the job title, desired skills, and required experience.
2. The ATS uses this information to create a profile of the ideal candidate.
3. As candidates submit their resumes, the ATS analyzes, sorts, and categorizes them based on how well they match the profile.
4. Recruiters can then quickly identify the most qualified candidates and advance them through the hiring process.

Most importantly, recruiters often filter resumes by key skills and job titles. Recruiters often filter resumes by looking for key skills and job titles.

The Future of Applicant Tracking

There is no doubt that artificial intelligence (AI) is rapidly changing the world of recruiting. Already, AI-based applicant tracking systems (ATS) are analyzing resumes, identifying potential candidates, and even conducting initial interviews.

As AI continues to evolve, ATS software is likely to become even more sophisticated.

As AI continues to evolve, ATS software is likely to become even more sophisticated.

In the future, these systems are expected to become more integrated with social media platforms such as LinkedIn. This will allow them to identify both active and passive candidates who are a good fit for open positions.

In addition, artificial intelligence-based chatbots could be used to answer questions and provide information about the application process.

4.8.2. Recruitment CRMs (CRM - Customer Relationship Management)

Features that we need to look for before the completion of CRM Recruitment

While every recruitment agency and staff have unique needs and expectations from its CRM, some features are mandatory for every recruitment agency and staff (Nzenze, 2023):

1. analysis and reporting;
2. candidate and client profile;
3. specialist;
4. automation;
5. collaboration;
6. compliance and security;
7. integration;
8. talent group categorization;

9. email sequencing.

4.9. What Is the Difference Between an ATS and a CRM?

When it comes to recruiting software, there are two main types of systems:

- Applicant Tracking Systems (ATS);
- Candidate Relations Management Systems (CRM).

ATS software is typically used during the hiring process and includes features such as resume analysis, candidate screening, and assessment tools.

The disadvantage of ATS software is that it only tracks candidates who have already applied.

Top employers hire for multiple positions simultaneously and receive hundreds of resumes for each position. Because it is easier than ever to apply for a job online, many of these candidates are not qualified and thought it was worth a try.

CRM systems, on the other hand, are used during the recruitment process to target potential candidates who have not yet applied. CRM features include email marketing, programming, and communication tools to build relationships with potential candidates.

While ATSs only provide data that candidates enter themselves, CRMs allow candidates to enter information they discover about potential talent. In other words, ATSs are more reactive, while CRMs are more proactive.

4.10. Filtering

A criterion (experience, education, age, etc.) defined by the hiring manager is loaded into the filtering algorithms. Resumes are quickly scanned and divided into short lists with filtering algorithms according to these criteria.

In addition, AI allows recruiters to filter data from social networks to find the right candidates and assess the values, beliefs and attitudes of candidates. For example, British Airways, BBS and Ford use filtering algorithms. The robot called Doris, the software tool called HiredScore developed by Unilever, can also filter and scan CVs.

4.11. Pre-selection

Chatbots are used for pre-selection. The chatbot can create a large data system needed to make human resource decision processes more analytical and provide 24/7 support thanks to communication with candidates. As it paves the way for communication with candidates, it automatically redirects those who are not suitable for the job and presents the results of preselection to HR managers. (Eubanks, 2019)

4.12. Artificial Intelligence in Selection

Candidates who are suitable for the job cannot be identified by traditional interviews and tests. Wrong decisions in the selection process can increase the turnover rate of organizations in the long run. Interviews can sometimes be influenced by environmental factors. Sometimes human resource managers can be biased in the selection process.

AI technologies can attempt to assist HR managers in identifying and matching suitable candidates with job requirements. Using AI in the selection process allows recruitment teams to prioritize their time and resources to candidates with significant potential. In this direction, AI in the selection process has been managed in terms of testing, video interviewing and selection decision.

4.12.1. Testing

AI has gamified this process to better determine pre-screened intelligence levels and skills. Many characteristics of candidates to be hired can be measured, such as cognitive skills, personality, persistence, intelligence, risk-taking potential, and performance under pressure.

AI technologies offer organizations the opportunity to use game design elements, as this technology is a tool that provides learning about employees.

The Asynchronous Interview, Often Called Video Interview or Digital Interview

A. How does asynchronous video interviewing work?

The key to one-way video is flexibility! Candidates use audio or video to answer a series of questions, and this interview method allows candidates to record interviews on their own schedule. This is the best aspect of asynchronous video interviewing. Accessibility is better than ever with the ease of a smartphone or computer. For this reason, candidates with uploaded programs often prefer the one-way video interview process over other alternatives. (Gonzalez, 2023; Paraphite, 2023)

Employers also benefit by saving time, effort, and money on massive recruiting efforts with a simple email or text. Here are a few steps to effectively use asynchronous, lightweight video interviews:

Step 1: Develop key questions;

Step 2: Invite candidates to video interview;

Step 3: Receive responses to all video interviews.

B. Advantages of Asynchronous Video Interviews

1. Replace phone interviews;
2. Reduce interview time and speed up the process;
3. Filter out the wrong candidates;
4. Increase the ability to connect with remote employees;
5. Solves programming issues;
6. Easily compare candidates.

Gamification

Gamification can be defined as a set of services where a core service is enhanced by rule-based service systems that provide the user with feedback and interaction mechanisms aimed at facilitating and supporting the creation of global user value. It has become an increasingly popular trend in recent years.

Gamification involves the use of structured rules and competitive conflicts to achieve specific goals and where a person is fully involved in the context.

It is often used to improve services and test gaming experiences, and can be a powerful tool for influencing behavior.

Gamification and game-based assessments could predict job performance as an alternative to traditional selection methods

Following the concept of "hidden evaluation", they highlighted the potential of game-based assessments to predict job performance.

In addition, the integration of serious games and AI provides new computational tools for social research. (Georgiou et al., 2019; Iazzolino et al., 2022)

4.13. The Selection Decision

After interviewing the candidates, the selection of the candidate who is considered the most suitable among the alternative candidates is made. Decision-making algorithms are used in machine learning to make precise decisions with AI technology.

4.14. Use of AI in Recruitment and Selection of Human Resources in Romania

As mentioned above (Covrig, 2007; Aungurenci, 2021), the methods used in the recruitment, selection and performance criteria of Romanian civil servants are outdated and obsolete. It is necessary to proceed to the recruitment, selection according to the following steps

- preparation of the CV to be given at the chatbot analysis according to certain criteria;
- conducting psychological tests (aptitudes, behavior, etc.).

After these stages and the creation of chatbot of eligible people:

- carry out the checks mentioned in the communication;
- video interview and gamification;
- finalizing the results.

In conclusion, it is necessary in Romania to succeed in the transition to these methods that are practiced worldwide.

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