

DEFINITIVE GUIDE TO AI IN RECRUITMENT

EDITION 2024



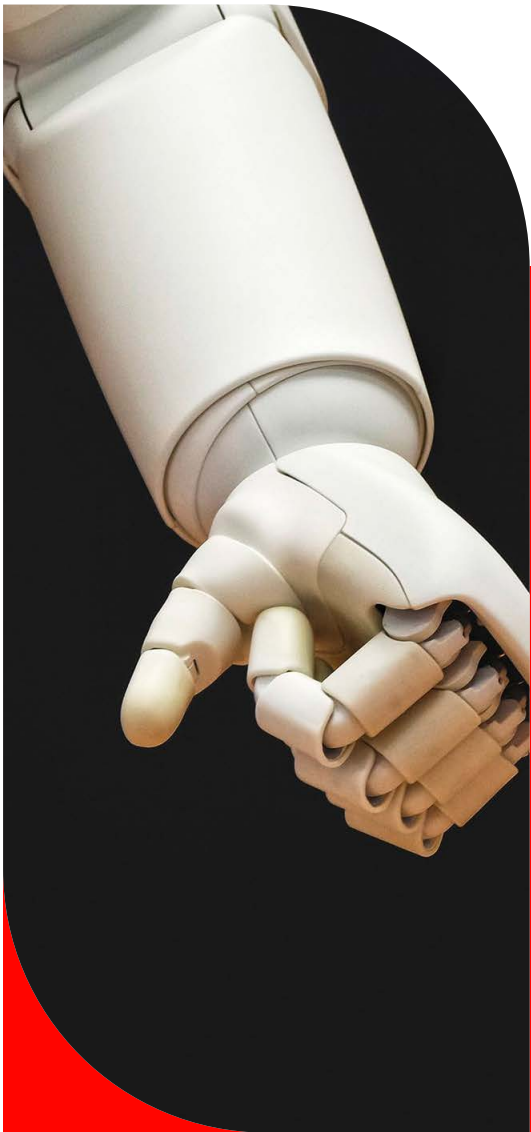
THE DEFINITIVE GUIDE TO AI
FOR THE MODERN HR PROFESSIONAL

talent *adore* 

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85% OF RECRUITERS THINK THAT AI IS A USEFUL TECHNOLOGY
THAT WILL REPLACE SOME PARTS OF THE HIRING PROCESS tidio.com



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ESSENTIAL AI TERMINOLOGY FOR RECRUITERS

Ethical AI: Ethical AI refers to a computer system or software designed to behave ethically and socially responsibly — in alignment with human values.

Algorithmic Fairness: Algorithmic fairness involves developing algorithms and machine learning models that do not discriminate against individuals or groups based on characteristics like race, gender or age.

LLM (Large Language Models): A large language model is an AI system that has been trained on large datasets to generate human-like text and to understand and communicate in natural language.

Bias Mitigation: Bias mitigation aims to identify and reduce unwanted biases in artificial intelligence systems that could lead to unfair or discriminatory outcomes.

Natural Language Processing (NLP): Natural language processing enables computers to analyze, understand, and generate human-like language.

Generative AI: Generative artificial intelligence refers to AI models and algorithms capable of developing new, synthetic data like images, audio, text, or code based on training data.

Adversarial Attacks: Adversarial attacks and data poisoning involve introducing carefully crafted inputs or manipulating training data to trick artificial intelligence models into making mistakes or producing undesirable outputs.

Artificial Intelligence or AI: Artificial intelligence refers to computer systems capable of performing tasks that typically require human-like intelligence, such as visual perception, speech recognition, decision-making, and language

translation.

Machine Learning: Machine learning involves the use of algorithms and statistical models that allow computer systems to perform specific tasks effectively without being explicitly programmed by learning from data.

Deep Learning: Deep learning is a subset of machine learning that uses artificial neural networks with multiple layers to learn from and make intelligent predictions on data such as images, sound, and text.

Artificial General Intelligence: Artificial general intelligence (AGI) refers to the hypothetical ability of an artificial intelligence system to understand and learn any intellectual task that a human being can in an intelligent, conscious manner.



KEY DATA SOURCES

How can you take advantage of data when using AI in recruitment?
HR data can be gathered from three main sources:

1

**APPLICANT
TRACKING
SYSTEM**

2

**HR
SYSTEMS**

3

**ONLINE
PLATFORMS**

AI tools assist you to take advantage of the data!

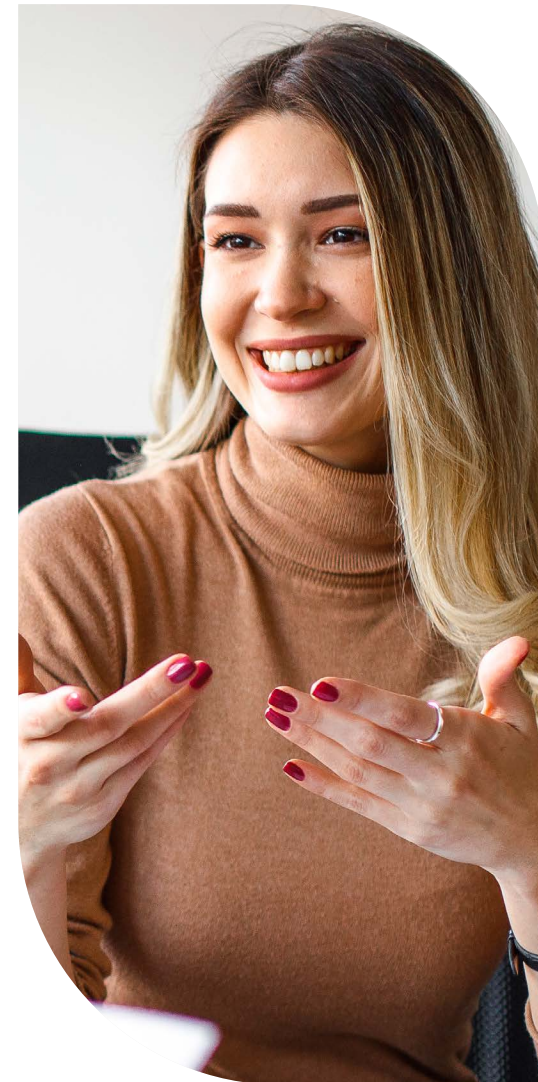
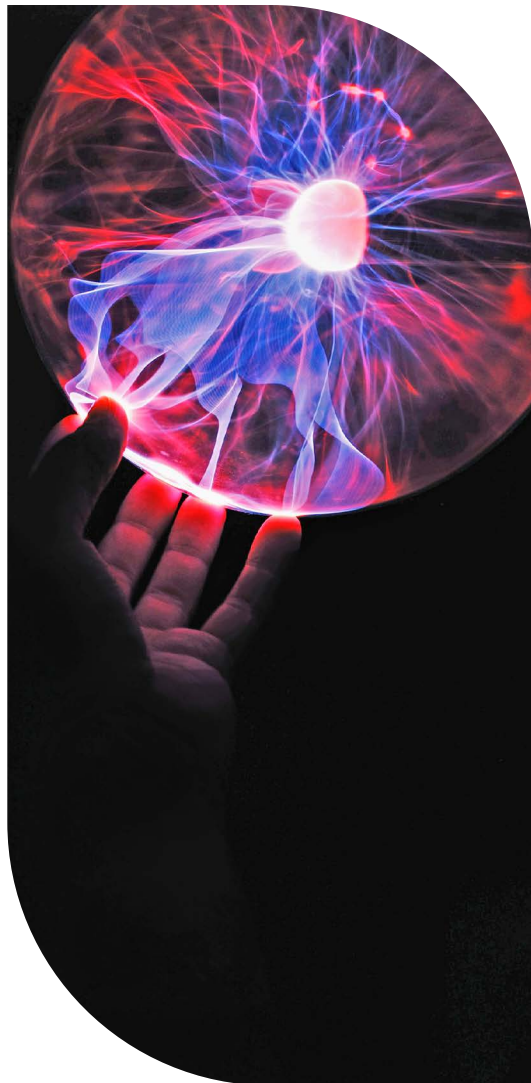
Recruitment processes and employment relationships generate lots of data. That data is usually stored in a applicant tracking system (ATS) and HR systems. Data can help you make decisions and improve the quality of recruitment. It can also reduce recruitment costs and improve the candidate experience as well as improve vacancy and recruiting forecasts. Sadly, many companies don't often systematically enrich or

effectively use the data.

Online platforms offer public data sets that are standardized. However the company that is using the data, doesn't own it. Good example of a online platform is ESCO, the European multilingual classification of Skills, Competences and Occupations. ESCO works as a dictionary, describing, identifying and classifying professional occupations and skills relevant for the EU labour market and education and training.

FIVE BENEFITS OF USING AI IN RECRUITMENT

1. IMPROVE THE QUALITY AND OBJECTIVITY OF RECRUITMENT



2. ATTRACT THE RIGHT CANDIDATES

3. NEVER OVERLOOK CANDIDATES AGAIN



4. SAVE TIME AND FILL POSITIONS FASTER

5. ENHANCE THE CANDIDATE EXPERIENCE AND EMPLOYER BRAND



1. IMPROVE THE QUALITY AND OBJECTIVITY OF RECRUITMENT

Recruiters, being human, are inherently prone to bias. AI has the potential to significantly reduce human bias in recruitment through various mechanisms and strategies. Here are a few examples:

Objective screening

AI can be programmed to evaluate candidates based on objective criteria rather than subjective judgments. By analyzing resumes and applications based on predetermined qualifications, skills, and experiences, AI can help ensure that candidates are assessed fairly.

Blind recruitment

AI systems can anonymize candidate information, such as names, genders, ages, and ethnicities, during the initial screening process. This helps prevent unconscious bias related to demographic factors.

Monitoring and mitigating bias

AI systems can be continuously monitored and audited to detect and mitigate biases. Machine learning models can be trained to identify biased outcomes and adjust their algorithms to promote fairness.

Improved job descriptions

AI can help create more inclusive job descriptions by analyzing language and suggesting changes to avoid gendered or biased wording. This can attract a more diverse pool of candidates.



2. ATTRACT THE RIGHT CANDIDATES

Receive fewer irrelevant applications

Attracting the most suitable candidate is an important goal for any organization. While there are plenty of ways to attract candidates and new methods are often introduced, job ads still have their place.

But what happens if the job ad doesn't give the right impression? You may receive many applications but not the right ones. You end up with more work and fewer quality candidates.

Artificial intelligence can help you by giving tips for writing a job ad, or even writing a job ad for you. Also, chatbots and matching technology can be used to direct candidates to apply for relevant jobs and also do the pre-screening on your behalf.

Let's look at an example

XYZ Tech Solutions struggles to attract qualified software engineering applicants. Despite numerous job ads, they receive many applications, but few meet the required skills. Implementing an AI-driven recruitment platform transforms their process.

The AI tool optimizes job descriptions and deploys chatbots for pre-screening, directing suitable candidates to relevant positions. Within months, XYZ Tech Solutions sees a significant improvement in applicant quality. The AI system ensures job ads highlight key aspects and filter out unqualified candidates early. Consequently, they receive more applications from highly skilled engineers, leading to faster, more efficient hiring.

75% OF EMPLOYERS IN 21 EUROPEAN COUNTRIES COULD NOT FIND WORKERS EQUIPPED WITH THE RIGHT SKILLS IN 2023. [euronews.com](https://www.euronews.com)



3. NEVER OVERLOOK CANDIDATES AGAIN

Did you know that tons of books and online articles teach candidates what type of keywords they should use and how they can hack their CVs? Why are these books so popular? Because candidates want to stand out from the crowd.

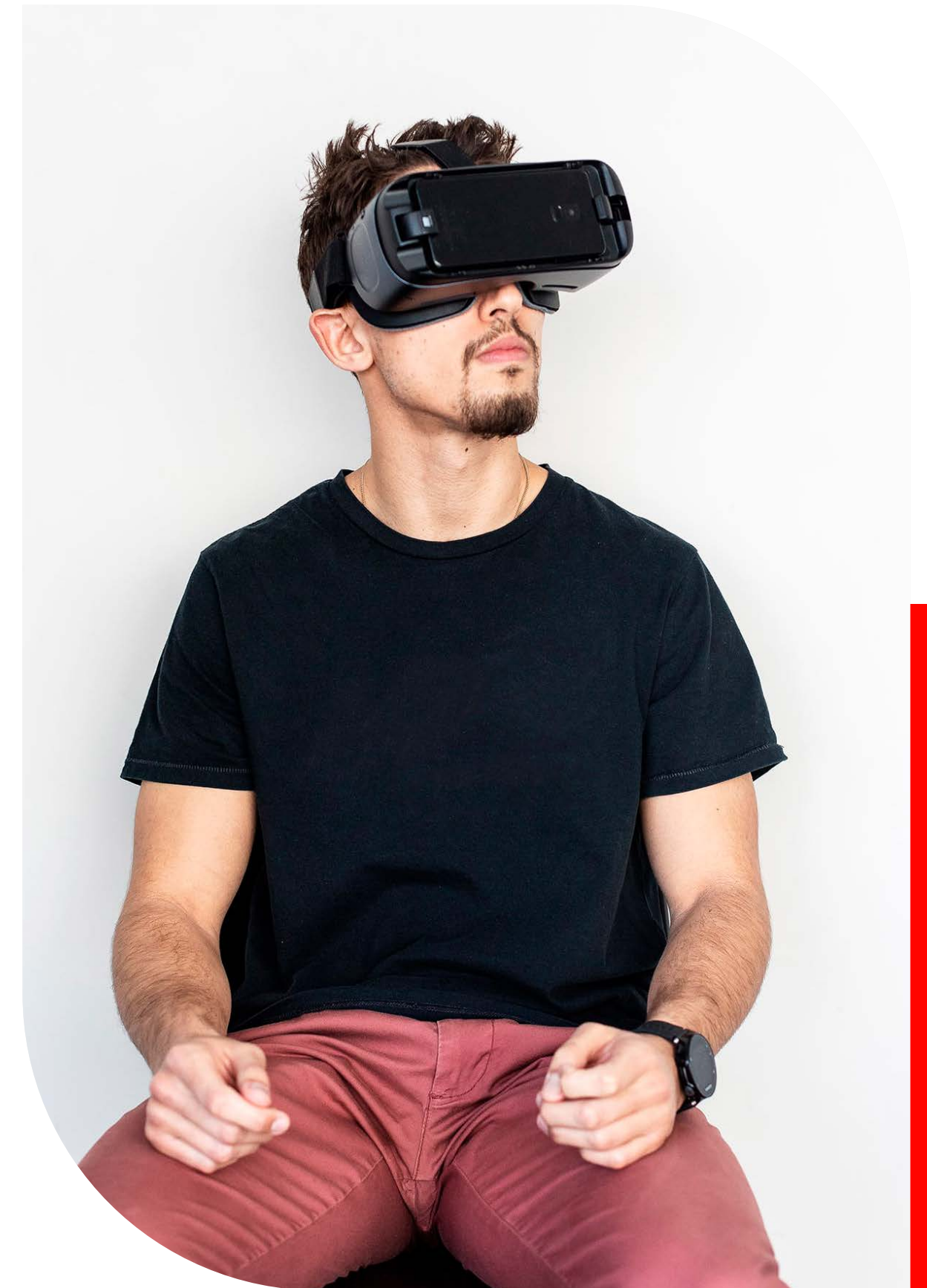
Without AI, recruiters rely on keyword searches to find candidates in a database. This approach carries a significant risk of overlooking excellent candidates. A candidate might possess the ideal experience and skills for a position but may not have used the exact keywords in their resume, causing the recruiter to miss or not discover them quickly enough.

Another thing to consider is that humans are biased by nature. We often tend to evaluate candidates on the wrong merits, such as the visual excellence

of a CV - even when graphic skills are not relevant to the position at hand. This can lead to bias in the screening process.

AI can evaluate candidates without depending solely on keywords or the recruiters personal preferences. It analyzes the entire content of candidates' documents, understanding the expertise and skills behind the words. This comprehensive approach helps ensure that no qualified candidate is inadvertently overlooked.

45% OF JOB SEEKERS HAVE USED GENERATIVE AI TO BUILD, UPDATE OR IMPROVE THEIR RESUMES. [forbes.com](https://www.forbes.com)



4. SAVE TIME AND FILL POSITIONS FASTER

A common problem in recruitment is that the process often takes too long, causing top candidates to accept offers from faster-moving companies. Wouldn't you prefer to streamline your recruitment process and avoid frustrating both yourself and your candidates?

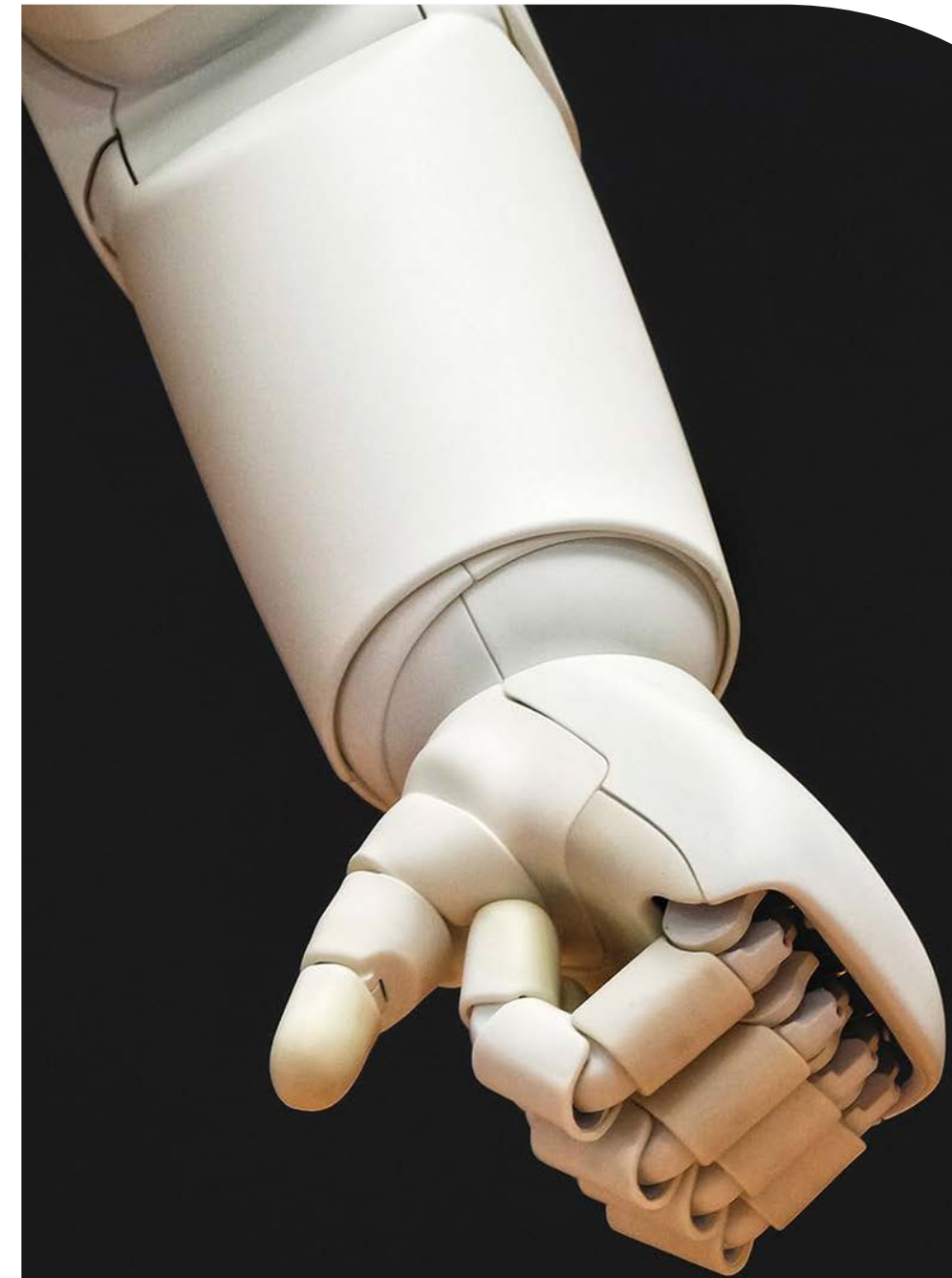
According to a study by Ideal, HR managers lose an average of 14 hours per week on manual tasks that could be automated. AI can save significant time across various stages of recruitment, including writing job descriptions, analyzing candidates, and communicating with them. By leveraging AI recommendations, you can prioritize and contact the most suitable candidates first, filling open positions more quickly.

It also helps streamline internal processes. If you use AI to generate interview notes and application summaries, you can digest information easily and share observations with your team.

Finally, by automating manual tasks, you can focus more on what truly matters: the people.

79%
**OF RECRUITERS BELIEVE
AI WILL BE ADVANCED ENOUGH
TO MAKE HIRING AND FIRING
DECISIONS SOON.**

[zippia.com](https://www.zippia.com)



5. ENHANCE THE CANDIDATE EXPERIENCE AND EMPLOYER BRAND

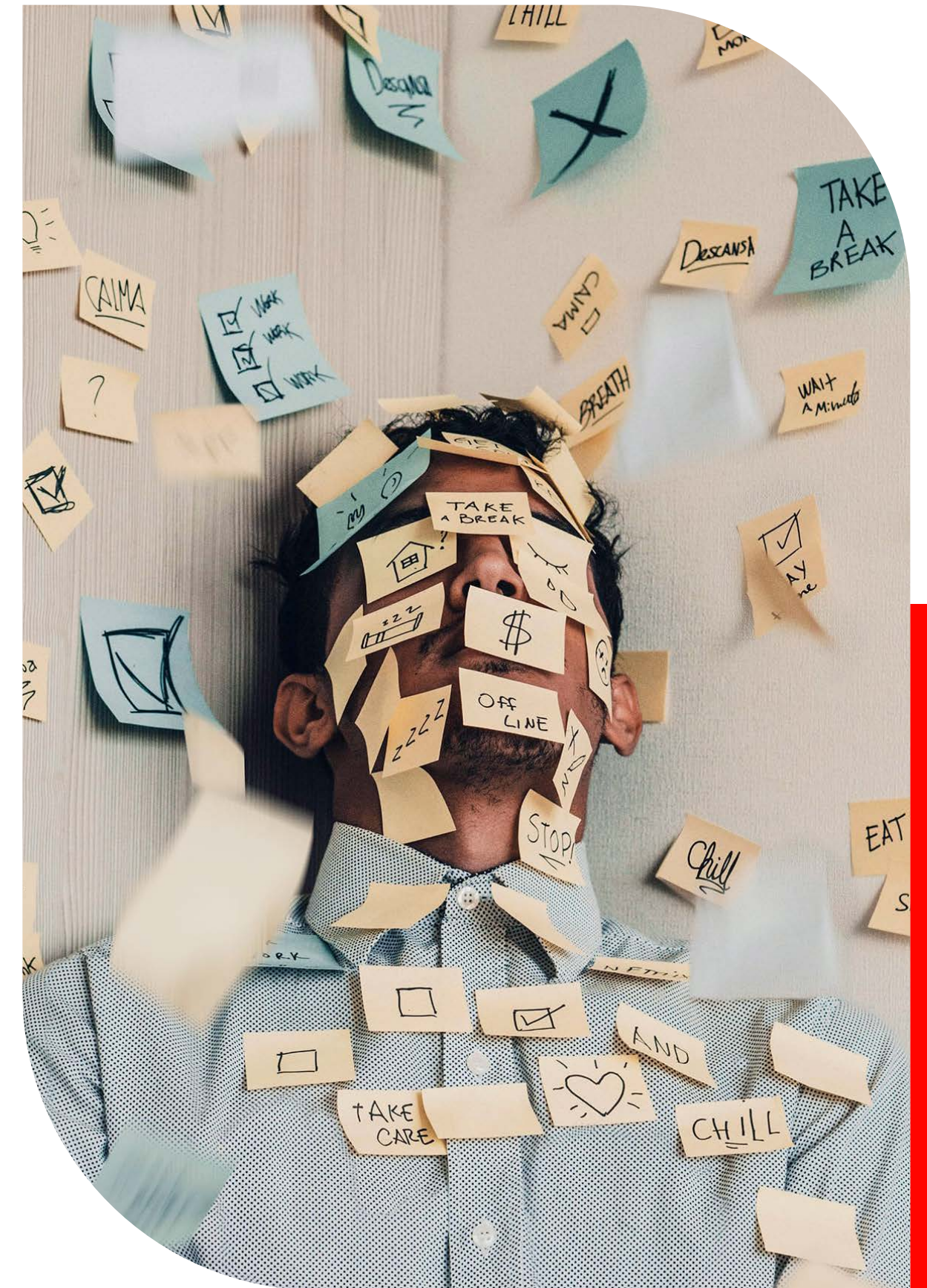
I am sure you would love to communicate with your candidates and provide a superior experience to each of them. However, you have a limited amount of time, and sending messages manually just consumes way too much time.

Communication with candidates significantly improves candidate experience and in the end, enhances your employer brand. Based on the study by Career Arc, 69% of job seekers believe the response time to candidates awaiting a recruiting decision can be improved the most.

With AI, you can efficiently communicate with job candidates, even if you receive thousands of applications annually.

1. AI chatbots can **automatically answer** candidates' questions
2. AI assistants can help **craft personalized messages** to each candidate, keeping them informed about the recruitment process.
3. AI matching can recommend the **most suitable positions for candidates** before you even speak with them.

65% OF CANDIDATES HAVE NOT RECEIVED CONSISTENT COMMUNICATION THROUGH THE PROCESS. www.paradox.ai



USE CASES FOR AI-POWERED RECRUITMENT

CANDIDATE COMMUNICATION

Communicating with candidates via status updates, chatbots, and feedback messages

SOURCING CANDIDATES

Sourcing tools for finding candidates automatically from internal talent communities

PREDICTIVE ANALYTICS & SIMULATIONS

Predicting what kind of a person would fit the team and recognizing when a new employee is needed

MATCHING CANDIDATES

Automatic recommendations of the most suitable candidates to enhance the diversity in recruitment

INTELLIGENT ANALYTICS

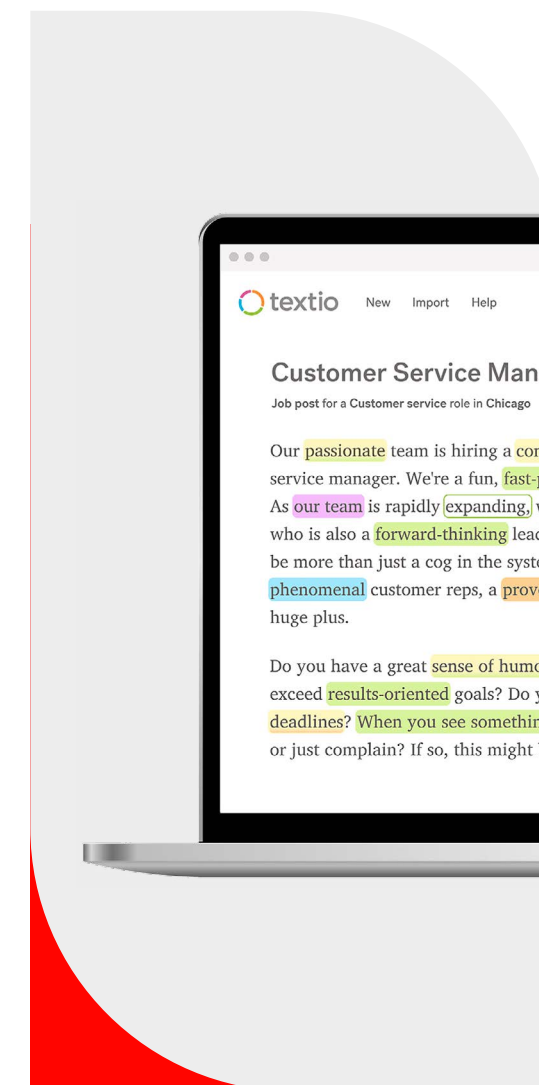
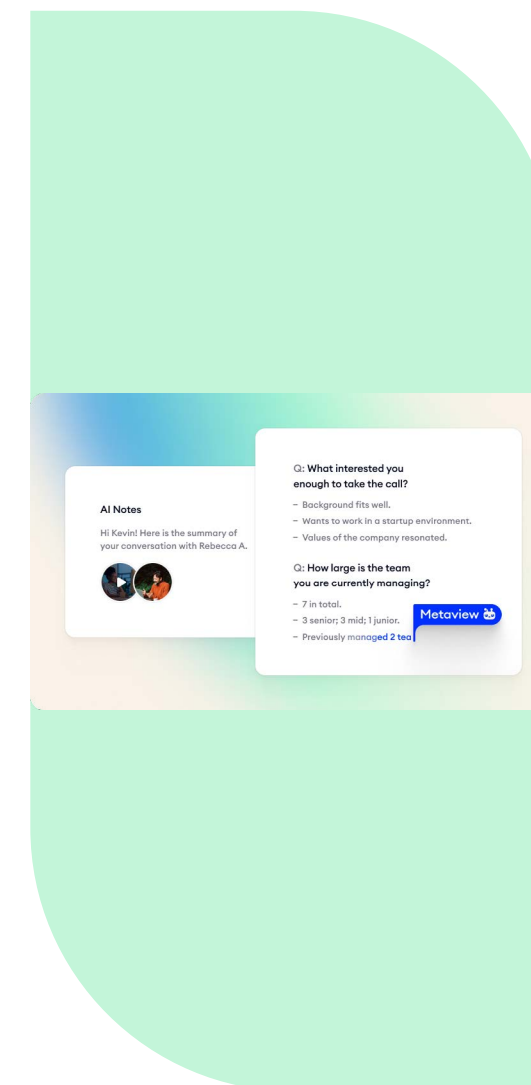
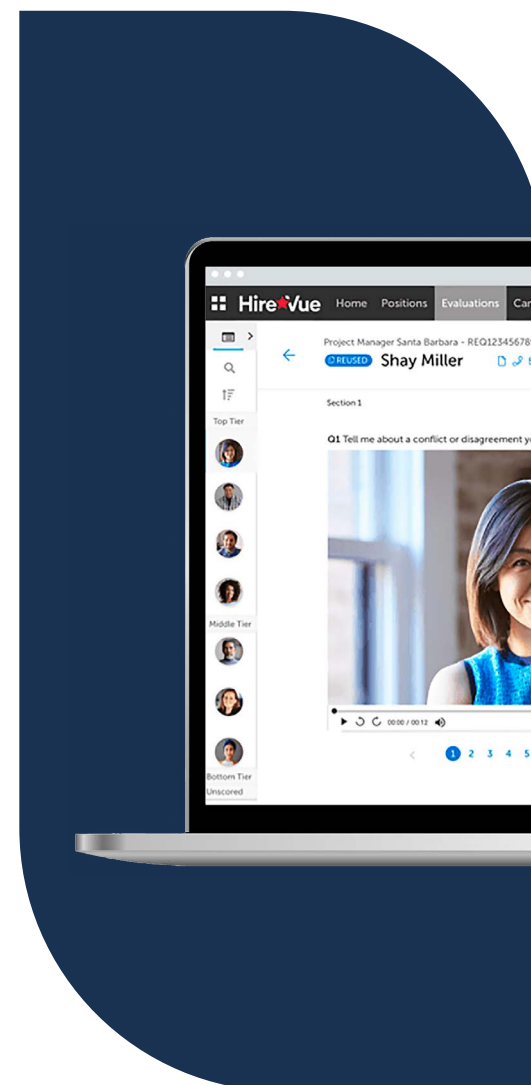
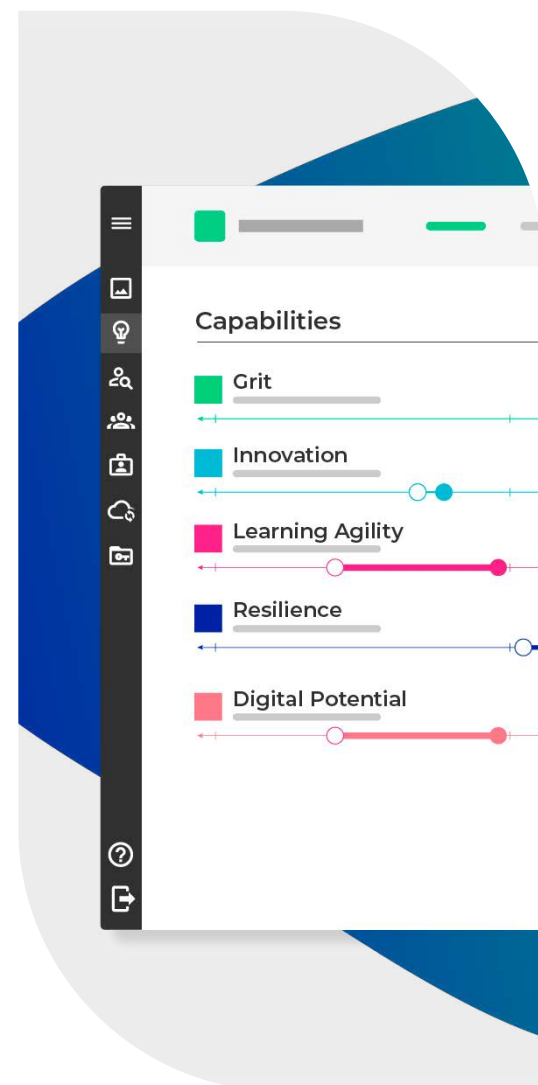
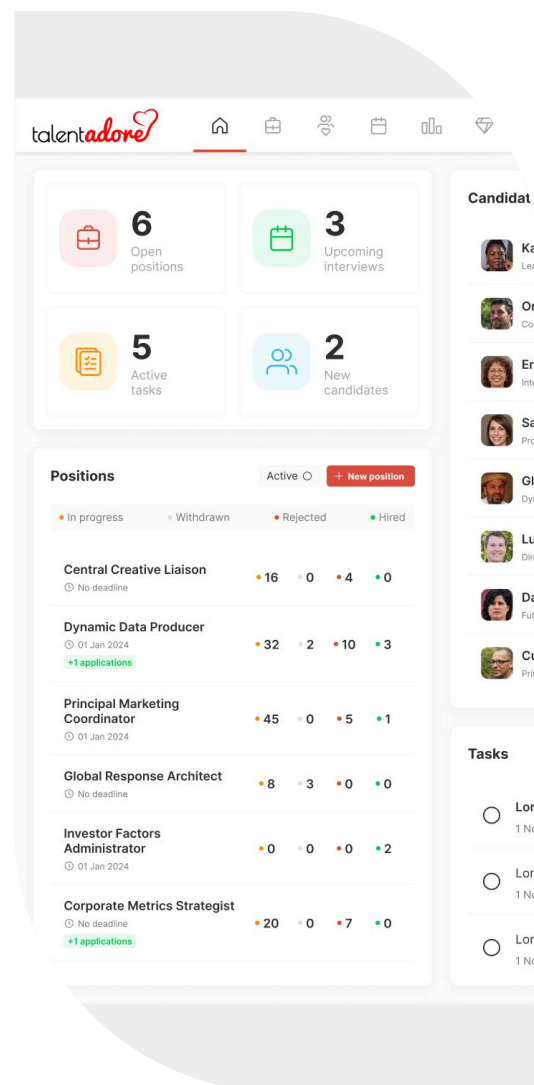
Metrics about candidate experience and candidate relevancy to develop the recruitment process

CONTENT CREATION

Creating better-targeted job ads to avoid irrelevant applications and save valuable time

PRACTICAL EXAMPLES: 5 AI-BASED RECRUITMENT TOOLS

The tools are found through recommendations and searching internet. We have not tested other tools on the list, except our own.



1. TALENTADORE

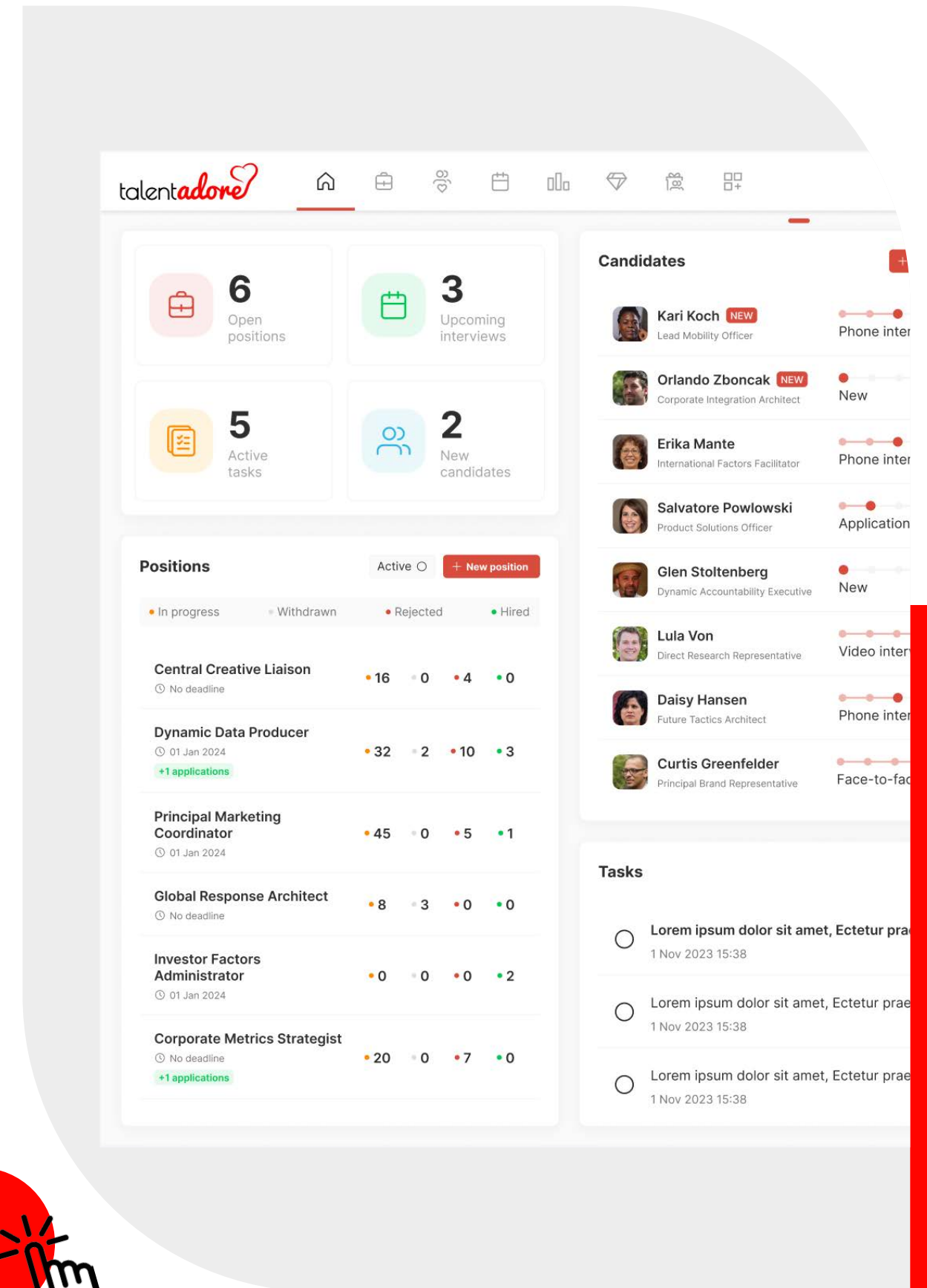
NEXT-GEN CANDIDATE COMMUNICATION, APPLICATION SCREENING, TALENT COMMUNITY & ADVANCED ANALYTICS

TalentAdore removes bottlenecks in recruitment one by one. This frees up time to focus on more value-adding work and allows engaging each and every candidate. Result: increased efficiency and exceptional candidate experiences.

WITH TALENTADORE HIRE'S AI ASSISTANT YOU CAN

- **Engage each candidate** - thanks to AI and clever automation, TalentAdore Hire enables seamless, timely and fully personalized candidate communication.
- **Send AI-assisted 100% personalized feedback** messages and keep your candidates up-to-date with automated and customizable status updates.
- **Generate entire job descriptions** and translate them to multiple languages.
- **Create summaries** of application documents, notes and interviews with a click of a button.

Visit TalentAdore



2. PYMETRICS

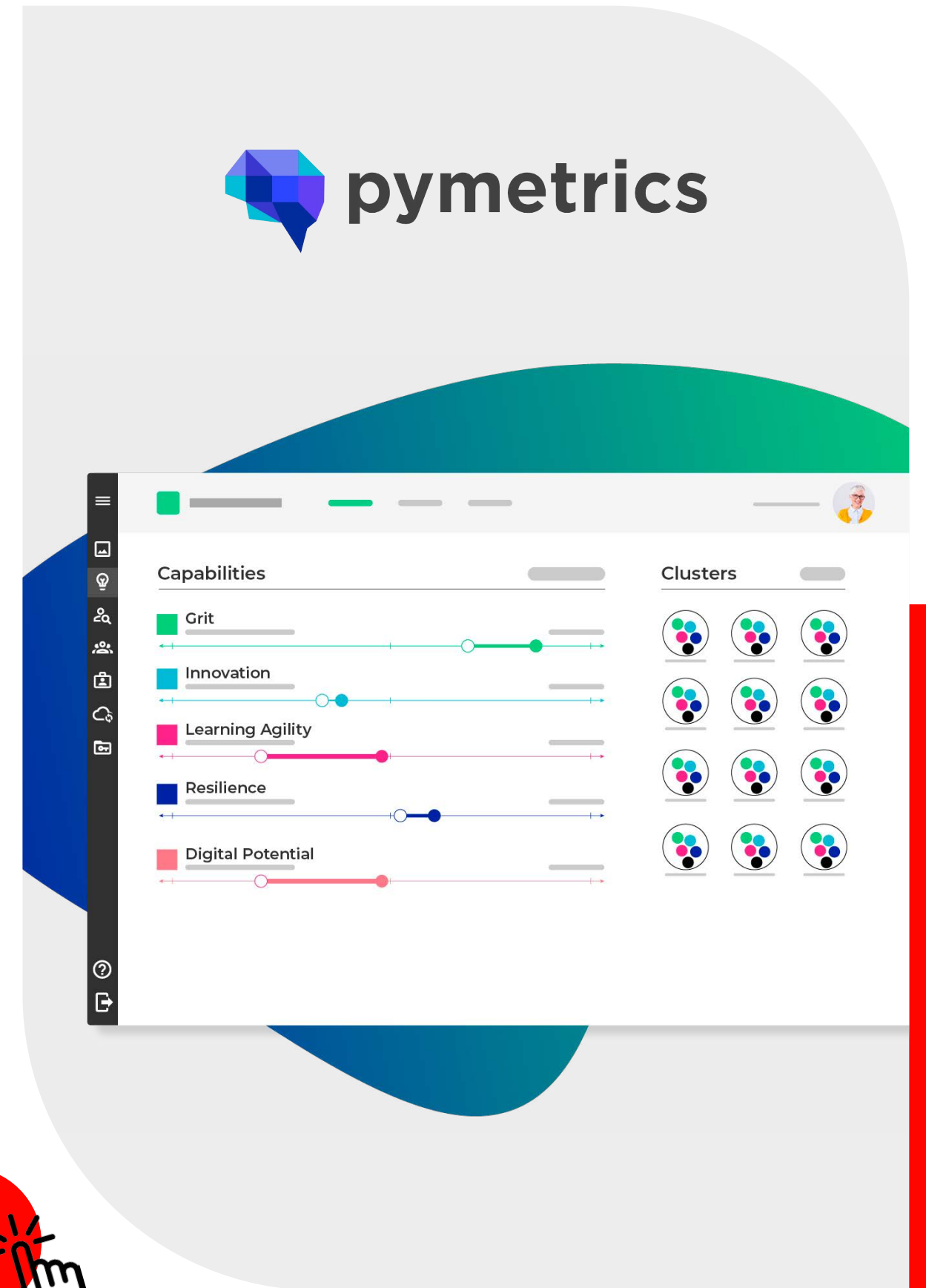
TALENT MATCHING BASED ON BEHAVIORAL DATA

Pymetrics is a soft skills platform that uses gamified behavioral assessments to evaluate the entire talent lifecycle. It helps recruiters remove bias by judging internal or external talent by their resume alone.

WITH PYMETRICS YOU CAN

- > Collect objective cognitive and behavioral data that measures every candidate's true potential.
- > Evaluate job seekers for any role within your company, and ultimately, any role in the Pymetrics ecosystem.
- > Utilize numerical & logical reasoning to broaden your understanding of someone's potential.

Visit Pymetrics



3. HIREVUE

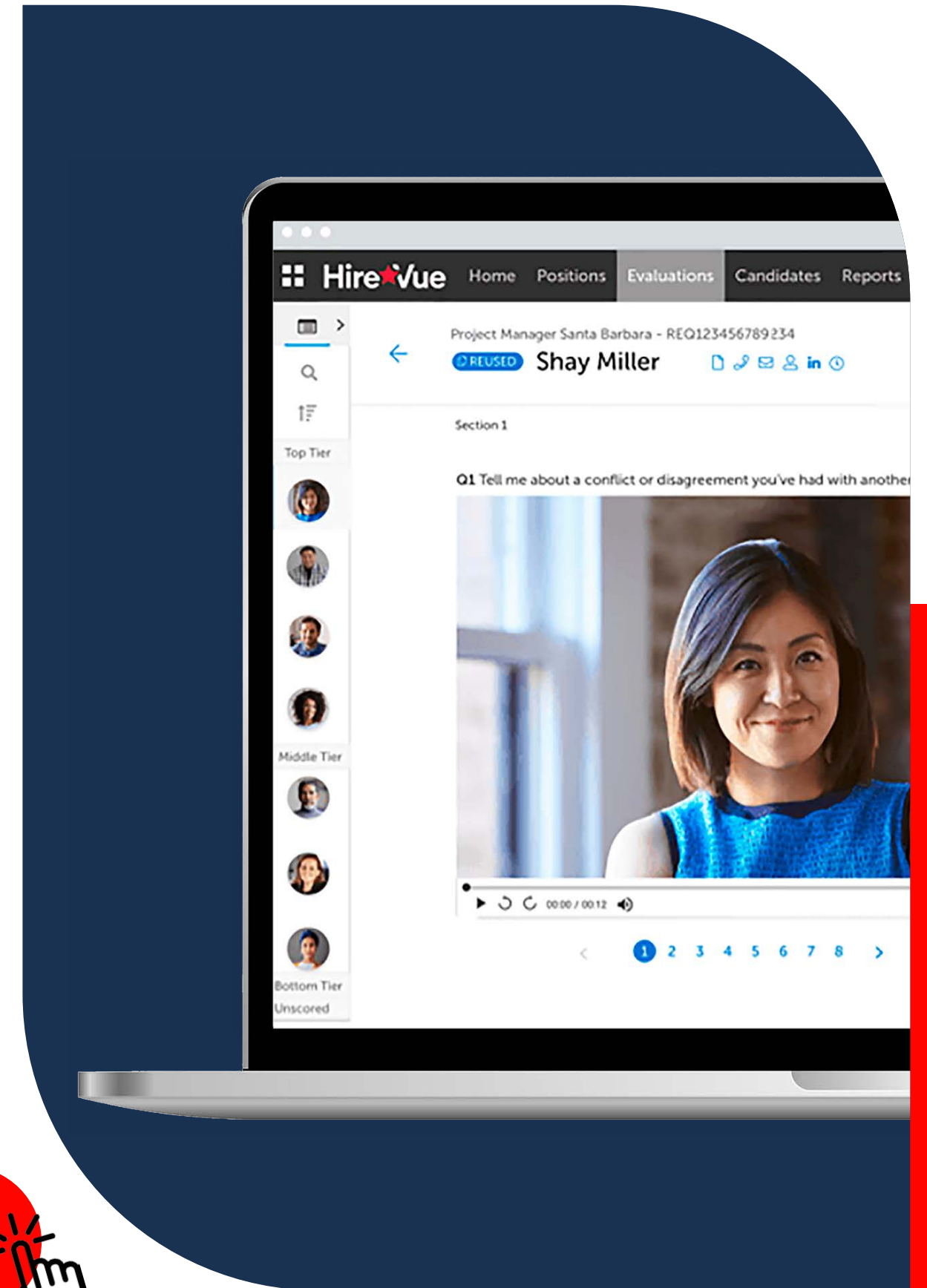
CONVERSATIONAL AI THAT ANSWERS YOUR CANDIDATES WHEN YOU CAN'T

By leveraging artificial intelligence, HireVue has created a 24/7 conversational assistant that helps match candidates' skills to job opportunities, ensuring smooth and continuous engagement.

WITH HIREVUE YOU CAN

- > Engage with candidates 24/7 through a conversational AI-assistant
- > Match candidate skills with job opportunities
- > Automate candidate progression in your Applicant Tracking Systems (ATS)

Visit Hirevue



4. METAVIEW

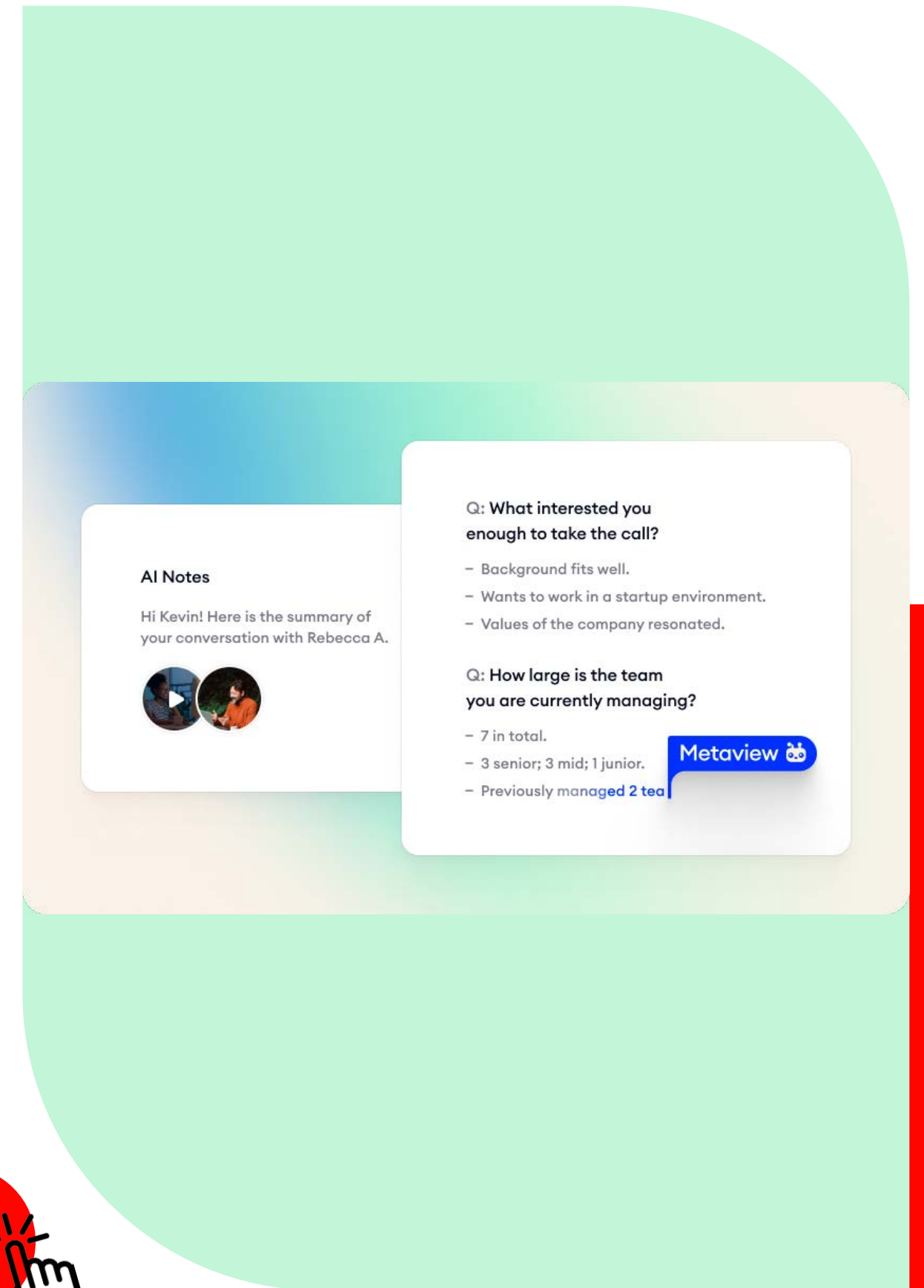
AUTOMATE YOUR INTERVIEW NOTES AND INSIGHTS

Metaview utilizes AI to automatically write interview notes on your behalf so you can save time and focus on high-quality interactions with candidates. It uses conversation analytics to pull insights out of interviews.

WITH METAVIEW YOU CAN

- > Free your time and improve focus on candidates via automated interview notes
- > Create tailored notes to fit specific needs, reducing clean-up time.
- > Enjoy automated scorecards: MetaView pre-populates interview scorecards with objective information.

Visit Metaview



5. TEXTIO

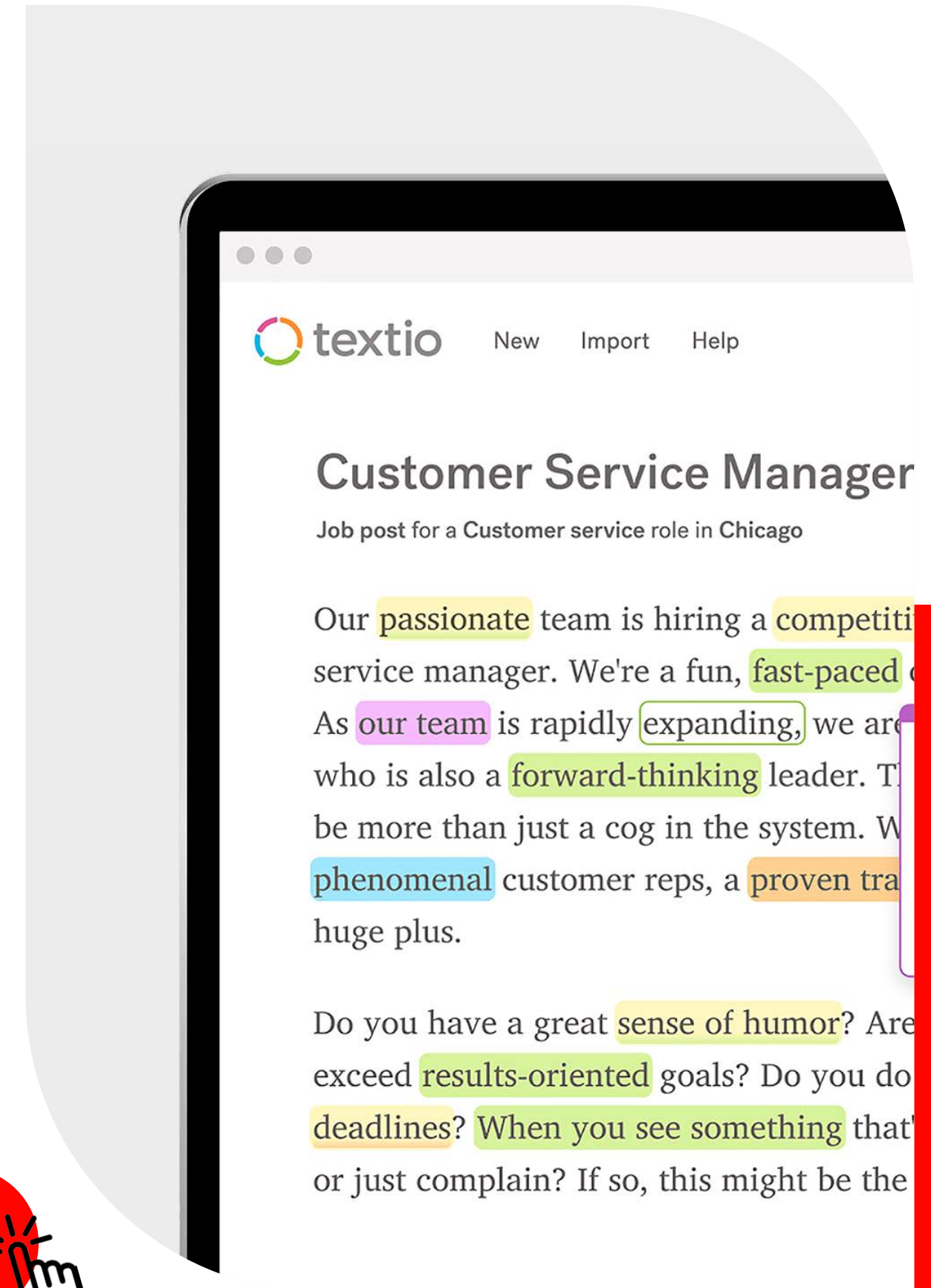
ELIMINATE BIAS IN YOUR CONTENT

Textio Loop is an AI solution designed to guide recruiting teams to quickly optimize job posts and candidate outreach with inclusive, on-brand language.

WITH TEXTIO YOU CAN

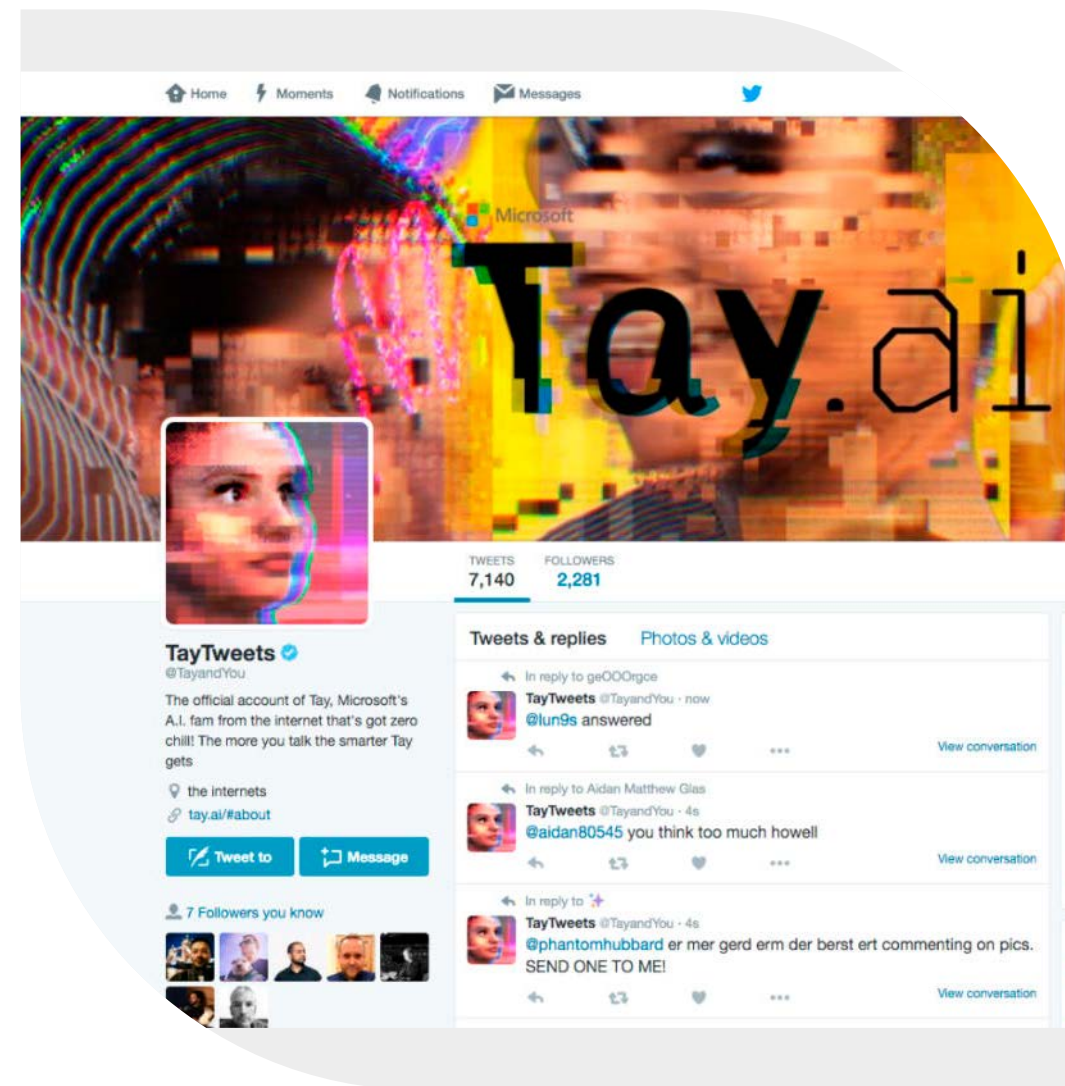
- > Grade and optimize job posts to appeal to the broadest range of candidates possible.
- > Get predictions of who your job ads will attract to apply.
- > Scale an employer brand that stays consistent with your company values.

Visit Textio



3 CAUTIONARY EXAMPLES AVOID THE PITFALLS

AI can be a powerful tool when wielded correctly. But the age-old adage “an excellent servant but a bad master” has been coined for a reason...





AMAZON'S HIRING TOOL

CAUTIONARY EXAMPLE

Amazon's hiring tool was a program that reviewed job applicants' resumes with the aim of mechanizing the search for top talent. It used AI to give job candidates scores ranging from one to five stars.

What happened?

- The tool didn't rate candidates for technical jobs in a gender-neutral way, but preferred male candidates.
- It was taught with real data that was biased and reflected the male dominance across the tech industry.
- The computer models were trained to score applicants with help of observing patterns in resumes submitted to the company over a 10-year period.
- The AI experiment failed but by learning from it, the company now uses a "much-watered down version" of the tool to help with some rudimentary tasks.
- Read more about [Amazon's tool on Reuters](#)

TAY.AI CHATBOT

CAUTIONARY EXAMPLE

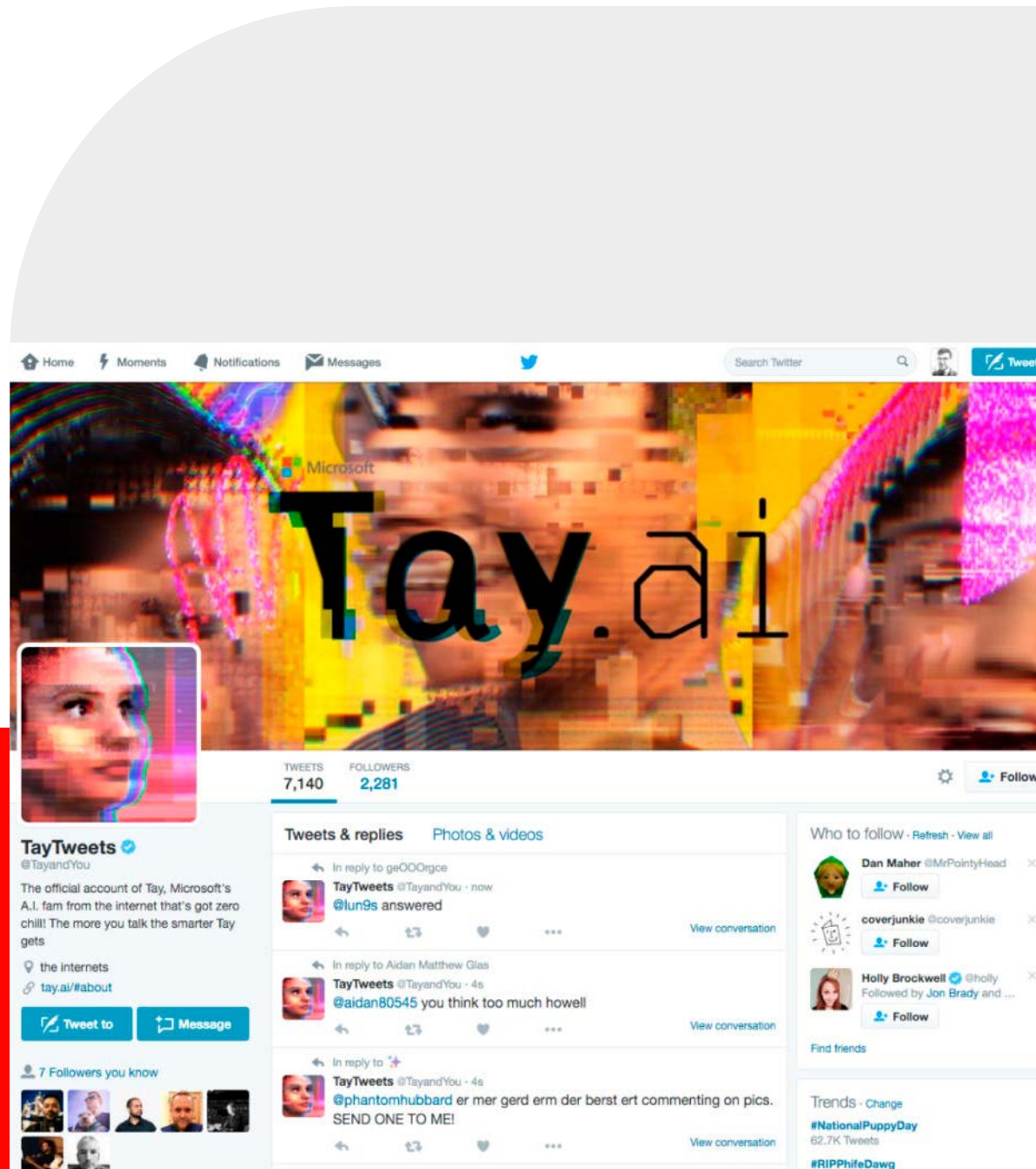
Tay.ai was built by the Microsoft Technology and Research and Bing teams, in an effort to conduct research on conversational understanding. It was able to tell jokes and offer up a comment on a picture you sent her. It was designed to personalize interactions with users and it ‘learned’ from those it interacted with.

What happened?

- Twitter users ‘taught’ Tay to be a racist
- She would often repeat back racist tweets with her own commentary.
- Microsoft took Tay down after only 16 hours of interacting with real people.
- Read more about Tay.ai on [TechCrunch](#).

DID YOU KNOW?

All data used to train **TalentAdore Hire’s AI models** is devoid of factors that could lead to bias, such as gender, nationality, age, or name.



HIREVUE - FACIAL RECOGNITION

CAUTIONARY EXAMPLE

Until 2021, HireVue, a prominent video interview and assessment vendor, incorporated a facial analysis component into its screening assessments. This component evaluated facial muscle movements, such as furrowing one's brow or smiling.

What happened?

- In a notable 2020 incident, UK-based makeup artist Anthea Mairoudhiou reported that her company required her to reapply for her position after being furloughed during the pandemic.
- Her evaluation consisted of both her past performance and an AI screening program called HireVue. Although she received high marks in the skills assessment, the AI tool

rated her body language poorly, resulting in her permanent job loss. Additionally, other workers have lodged complaints against similar platforms.

- In 2021 HireVue discontinued its facial analysis feature.

[Source: BBC](#)



PRIVACY & DATA SECURITY OF AI IN RECRUITMENT

While AI has been around for quite some time, solutions like ChatGPT caused a surge in the usage of AI in work-life in recent years. The rapid change means that many aren't truly aware of AI's effect on data security. The potential implications of using AI tools recklessly or using the wrong AI tools altogether could be devastating.

Utilizing AI in a privacy-sensitive business function such as HR and recruitment raises significant security and privacy concerns that both employers and candidates must carefully navigate.

Storing and processing candidate information with AI

Safe storage and handling of candidate information is one of the most important aspects of modern, digital-age recruitment. Using AI during recruitment,

especially tools that aren't built-in or properly integrated into your recruitment or HR software, might pose a serious threat to candidates' privacy and data security.

Example: a recruiter decides to share a candidate's CV and interview notes with ChatGPT. Sharing this information with third-party solutions like OpenAI hasn't been specified in the company's privacy policy. Data is transferred outside the EU as the servers are located in the USA, and the information might be used to further train their AI models. Employers must exercise caution in how they collect, store, and utilize candidate data to ensure compliance with privacy regulations such as GDPR or CCPA. Always make sure you don't share any personal information with outside AI tools without consulting your data security specialists.



PRIVACY & DATA SECURITY OF AI IN RECRUITMENT

Vulnerabilities of AI tools: cyber threats and data breaches

From a security standpoint, reliance on AI-powered recruitment tools, especially ones using open-source models, introduces vulnerabilities that malicious actors may exploit.

Cyberattacks targeting AI systems, such as data poisoning or adversarial attacks, can compromise the integrity of candidate evaluations and lead to biased or inaccurate hiring decisions.

Employers must invest in robust cybersecurity measures, including encryption, authentication protocols, and regular security audits, to safeguard against potential breaches and uphold the confidentiality of sensitive information.

3 things to ask a service provider before implementing AI tools in recruitment

It is never a good idea to make hasty decisions when deciding to incorporate AI tools in recruitment. Here are a few questions you can ask any potential AI recruitment tool provider:

- Where are the servers located?
- Is the recruitment data transferred outside of the EU? If yes, how is the GDPR taken care of?
- How is the solution protected against cyber threats and data breaches?

If you wish to learn about how to choose the right AI-powered recruitment software, you can read our blog listing 5 essential factors you should consider

” WE AT TALENTADORE STRIVE TO MAKE OUR PRODUCT THE MOST SECURE AI RECRUITMENT SOFTWARE IN THE MARKET.

Tapio Pitkäranta
CTO TalentAdore



AI LEGISLATION IN THE EUROPEAN UNION

Did you know that the European Union's parliament has approved the world's first major set of regulatory ground rules designed to oversee the burgeoning field of artificial intelligence?

This pioneering legislation, known as the EU AI Act, is a significant step in regulating AI, which is currently at the forefront of technological investment and innovation.

The EU AI Act classifies AI technologies into different risk categories to ensure their safe and ethical use. These categories range from “unacceptable” risk, which includes AI systems that are deemed too dangerous or harmful to be allowed, to high, medium, and low risk.

By implementing this structured approach, the EU aims to balance innovation with the protection of public interest, setting a global benchmark for AI governance.

79%

**OF RECRUITERS BELIEVE
AI WILL BE ADVANCED ENOUGH
TO MAKE HIRING AND FIRING DECISIONS SOON.** [zippia.com](https://www.zippia.com)



KEY TAKEAWAYS FROM THIS GUIDE

AI is here to stay, and we want to help you stay ahead of the curve. After reading this guide, you will understand how AI can be utilized in recruitment, the various tools available, and the benefits AI can bring to your hiring process.



1

Maximize the benefits

AI can enhance the quality and objectivity of your recruitment process, save time, fill positions faster, and improve the candidate experience.

2

Be aware of potential pitfalls

When adopting an AI solution, ensure it uses reliable data and complies with GDPR. Avoid 'black box' solutions where the AI's functionality is not transparent. Demand clarity and transparency from your suppliers.

3

Maintain control

AI should assist you, not make decisions on your behalf. Avoid rejecting candidates solely based on AI recommendations. Remember, AI is a great servant but a poor master.

4

Educate yourself on AI

Stay open to new innovations and continually educate yourself. AI won't replace jobs, but those who know how to leverage AI will have an advantage. This guide is a great starting point to learning more about AI in recruitment.

5

Integrate AI thoughtfully

Integrate AI into your recruitment strategy incrementally. Start with automating simple tasks and gradually expand its use as you become more comfortable with the technology. This ensures a smooth transition and maximizes the benefits.

ADDITIONAL RESOURCES

THANK YOU FOR READING!

We hope you enjoyed our guide and encourage you to keep learning and staying ahead of the curve.

Best regards, **Team TalentAdore**

FREE ONLINE COURSE

After reading this guide, consider taking the free **Elements of AI course** offered by Reaktor and the University of Helsinki.

Join over 1 million learners in exploring the fundamentals of AI. Dive in and start learning today!

FASCINATING BLOG POST

TalentAdore regularly publishes insightful blog posts on AI advancements.

Visit our blog to learn more about AI-assisted recruitment and stay updated on the latest trends and innovations.



BALANCE EFFICIENCY AND HUMAN TOUCH WITH AI

MODERN RECRUITMENT SOFTWARE LOVED BY RECRUITERS AND CANDIDATES ALIKE.

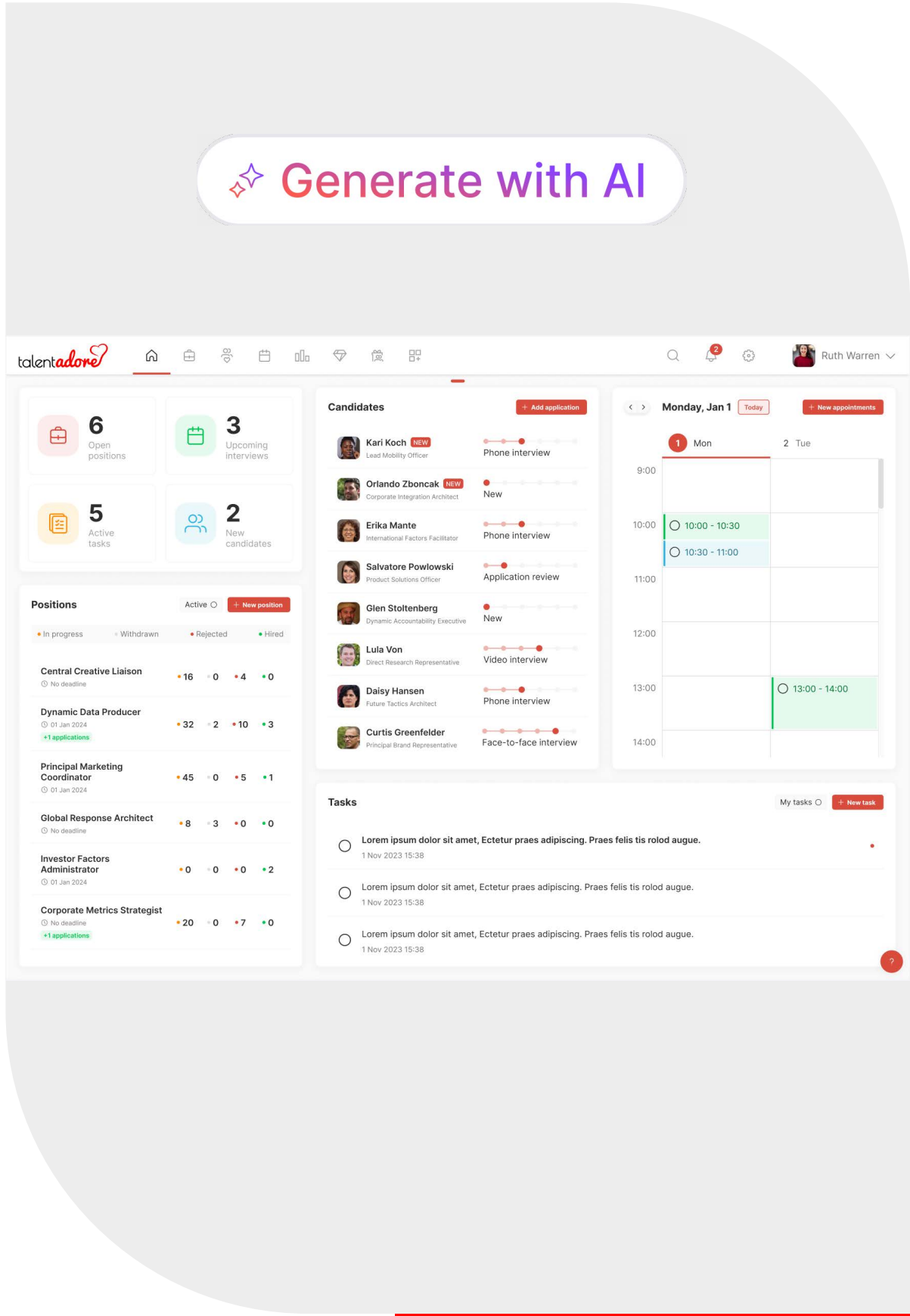
TalentAdore Ltd. is a global HR technology company based in Finland on a mission to bring the human touch back to recruitment.

Trusted by over 30,000 HR professionals in 24 countries, TalentAdore Hire helps companies reduce time-to-hire by up to 50% and cut hiring costs by up to 40%. You can manage your entire recruitment process from job postings to hiring decisions, build dynamic talent communities, and pre-onboard new hires before their first day.

Our AI-assisted recruitment software removes bottlenecks in recruitment one by one. This frees up time to focus on the moments that matter and create an exceptional candidate experience.

Find out more and visit us at talentadore.com

Request a Demo



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