# NOTHING ARTIFICIAL:

## A Guide to AI in Talent Acquisition

**JOBVITE**

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# Introduction

The phrase "artificial intelligence" (AI) was first coined in 1956 at a conference of computer scientists held at Dartmouth. In the decades since, computer scientists, entrepreneurs, hardware, and software developers have endeavored to give life to AI in ways that automate the mundane, accelerate decision making, and improve business outcomes.

As with all industries, the promise of AI in talent acquisition (TA) is an area of ongoing research and development. While some efficiency gains have been realized through the use of AI-powered chatbots and candidate screening tools, there remain many recruiting processes that could benefit from further AI automation. The challenge, however, is one that goes beyond technology. It requires people—TA professionals—to grasp both the risks and rewards of AI-powered solutions.

In that spirit, we're pleased to provide you with this guide to AI in talent acquisition. There truly is nothing artificial about the efficiencies you'll realize once you deploy AI-powered recruiting solutions. But to get there, you and your entire team must understand what AI is and isn't as well as how to develop the people and processes to guide the successful deployment of new technologies. After all, the recruiting intelligence comes from you.
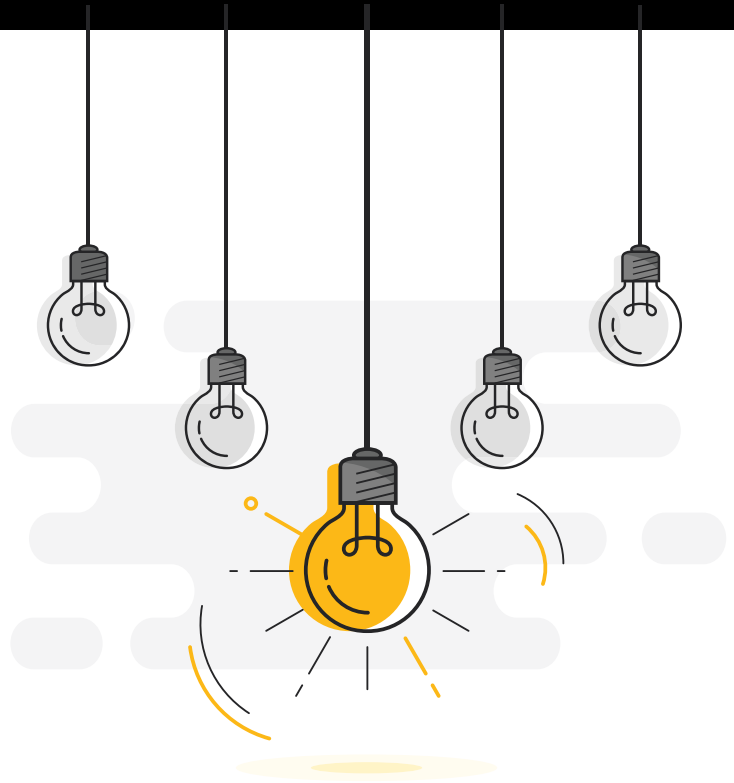
## Why AI?

AI holds the promise of doing more, better, and with less. It is the Holy Grail of recruiting sidekicks—technology that makes recruiters recruit faster and more successfully while delivering a candidate experience that bolsters the employer brand.

That's the promise, anyway. To get there, you must first understand the variations of AI at work today.

> "AI is helping talent acquisition to become a more strategic partner to the business".
>
> **– Megan Buttita, Research Director, IDC**

# The Many Faces of AI

## Artificial Intelligence: Automate Mundane Tasks So You Can Tackle More Rewarding Work

Artificial intelligence itself is any task performed by a program or machine that, if carried out by a human, would have required human intelligence to accomplish. The term AI encompasses Machine Learning, Natural Language Processing, Optical Character Recognition, and Sentiment Analysis.

AI is now one of the fastest growing assets to technology platforms because it increases the speed with which tasks can be completed while improving the quality of outcomes. This enables recruiters to spend more time focusing on efforts that build deeper relationships and connections (i.e., the fun stuff).

## Machine Learning: Predict Patterns and Make Time-Saving Recommendations

With **Machine Learning (ML)**, computer systems use algorithms and statistical models to perform a specific task without explicit instructions, relying on patterns and inference instead. Simply put, the machine works to find patterns in data and then applies it. For example, online retailers like Amazon use ML to recommend products you might like based on your previous purchases.

ML is especially helpful for recruiters who can leverage it to automatically send the right jobs to the right candidates based on their career site activity, professional experience, and personal interests. With that heavy lifting automated, recruiters can spend quality time in conversation with candidates who are the most qualified, clearly motivated, and truly excited about joining the company. ML can further support these conversations by sending supporting messaging at the right time and through the right channel to ensure the highest candidate engagement rates.
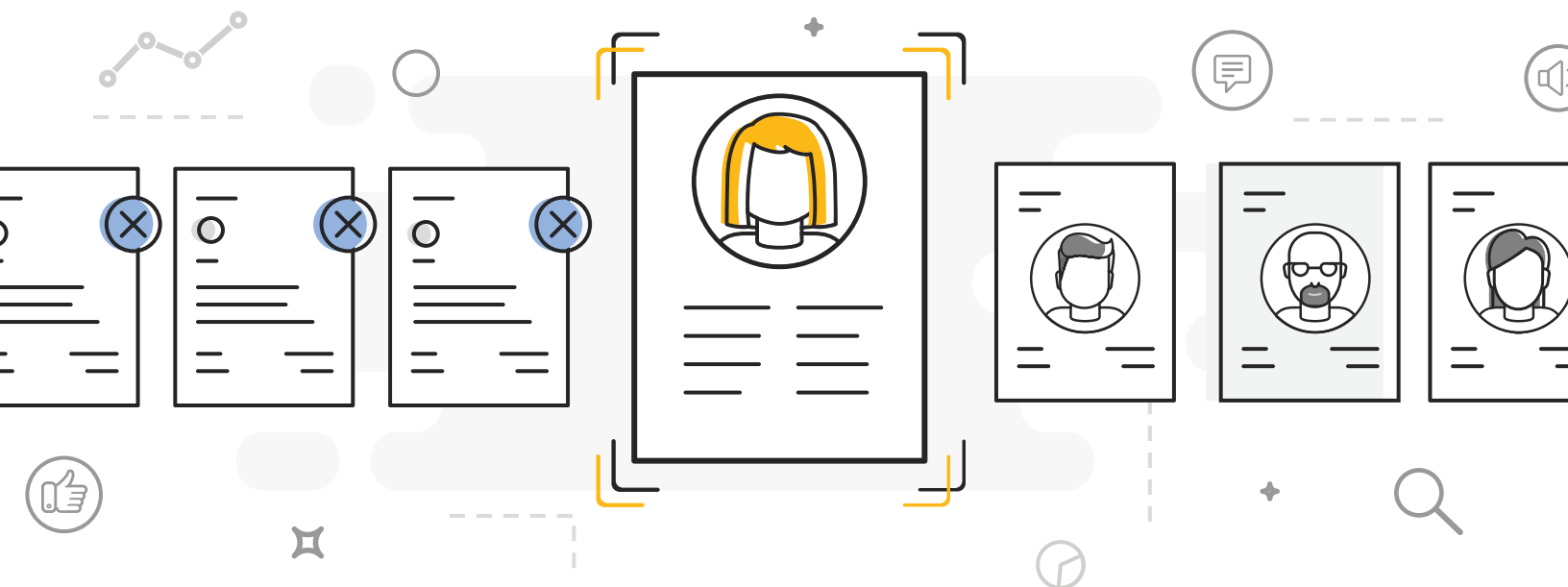
## Natural Language Processing: Learn, Speak, & Analyze the Language of Every Candidate

**Natural Language Processing (NLP)** helps computers understand, interpret, and manipulate human language. Virtual home assistants like Alexa, Google Assistant, and Siri are all ways we engage with NLP systems every day.

With screening, interviewing, and hiring activities now taking place across multiple channels including email, text, and social media, there's more opportunity for candidates to express their unique personalities with emojis, memes, and a more casual tone. Through NLP-powered chatbots, AI can help recruiters decipher these interactions accurately and quickly to accelerate applications and screening efforts.

NLP can also be used to scan and anonymize content that might contribute to conscious or unconscious bias in the candidate screening process.

## Optical Character Recognition: Translate Images into Useful Information

**Optical Character Recognition (OCR)** is the electronic or mechanical conversion of images of typed, handwritten, or printed text into machine-encoded text. It may sound complicated, but many of us already interact with OCR regularly when we deposit a check via front and back pictures submitted through our mobile banking apps.

OCR can be deployed to enable job seekers to scan resumes and other required documentation straight from their smartphones. The efficiency of the experience not only accelerates the application process, but also creates a positive candidate experience.
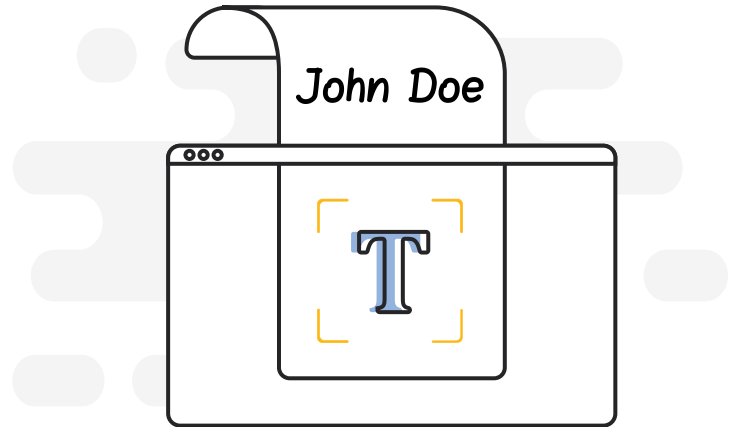
## Sentiment Analysis: Better Understand a Candidate's Interest

Finally, there is **Sentiment Analysis**, a subset of NLP. Sentiment Analysis is the interpretation and classification of emotions (positive, negative, and neutral) within text data using text analysis techniques.

Using sentiment analysis, chatbots can pre-screen candidates by gauging responses to a pre-populated list of questions as positive, neutral, or negative. Sentiment Analysis never presumes to completely qualify or disqualify a candidate. Rather, a candidate's sentiments are translated and recruiters are armed with the information they need to make the best qualification decisions.

# AI Use Cases in Recruiting

The current AI use cases in recruiting are plentiful and bound to grow over the coming years. Below are some of the most common for you to consider.

who possess the desired skills and experiences. And more choices of candidates will lead to better quality hires.
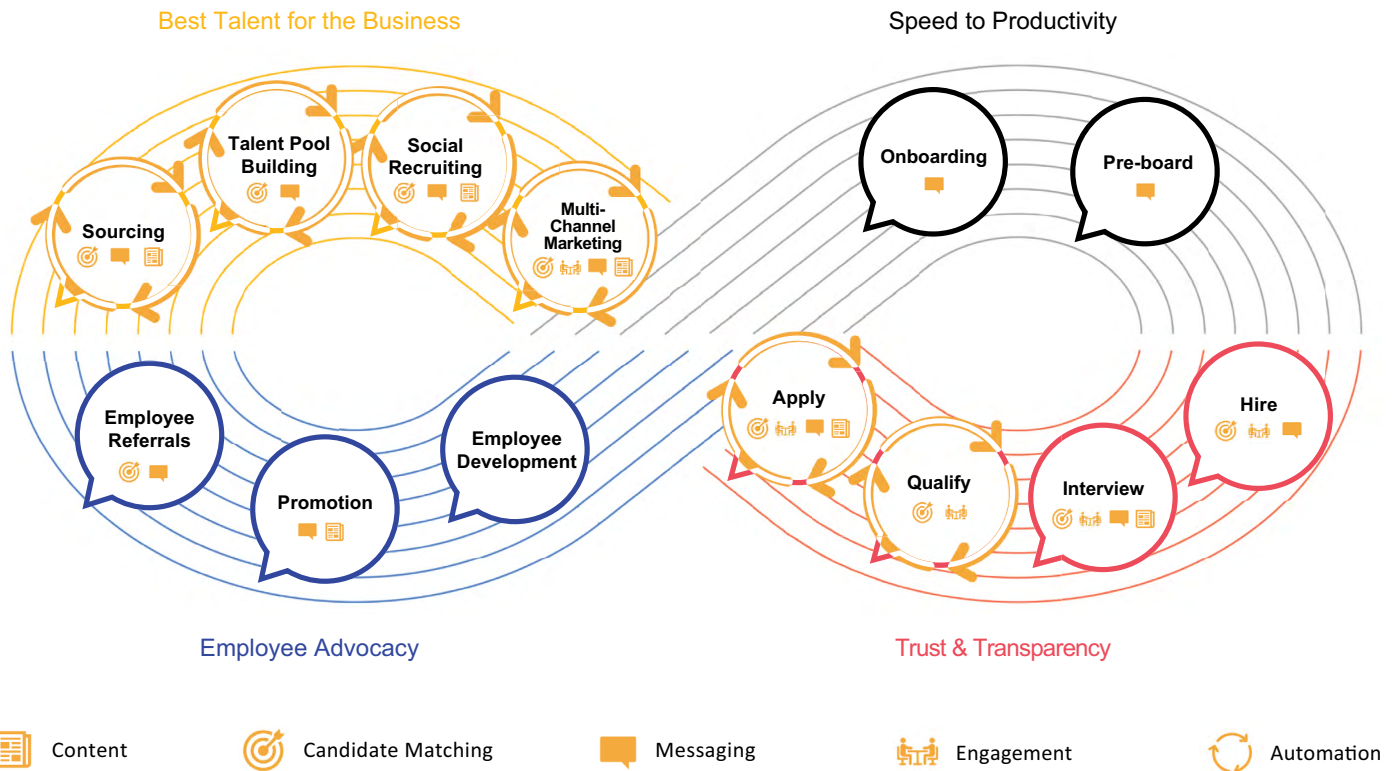
## Sourcing

According to Forbes, recruiters spend **13 hours each week sourcing**[i] candidates. With AI-powered sourcing, talent acquisition teams can build wider, more diverse talent pools, giving them more choices of candidates. AI-powered sourcing identifies the relevant skills and experiences necessary to excel at any job requisition and then searches the Candidate Relationship Management (CRM) database to find candidates

## Audience Targeting

Knowing which job boards, locations, and strategies to use for sourcing the best candidates is what every talent acquisition strives to understand. With AI-driven data analysis, TA systems can automatically allocate job board budgets towards the highest yield channels. With native AI in a job broadcast system, it'll know where to place ads, how much to bid, and when to promote.

## Recruiting Loop + AI + Automation



Best Talent for the Business — Speed to Productivity

Talent Pool Building · Social Recruiting · Multi-Channel Marketing · Sourcing · Onboarding · Pre-board · Employee Referrals · Promotion · Employee Development · Apply · Qualify · Interview · Hire

Employee Advocacy — Trust & Transparency

Content · Candidate Matching · Messaging · Engagement · Automation

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## Screening

The average recruiter spends 16 hours each week screening candidates. With conversational AI deployed within web- and text-based chatbots, this can be reduced **to just 5 hours for recruiters**[ii]. AI can automatically qualify or disqualify candidates based on their skills and qualifications using customized screening questions. This AI automation saves the recruiter time and empowers them to focus on more in-depth questions and move on quickly from candidates who are not a good fit.

## Candidate Matching

AI-powered candidate matching enables recruiters to sort through a large volume of candidates and identify those who are most closely aligned with a job description. These AI algorithms automate what has been a torturous, manual process for recruiters. With automated intelligent candidate matching, recruiters can prioritize candidates and focus their time on talent with the skills and experience needed to succeed in a position while quickly identifying candidates who may be more qualified for a different open role.

## Candidate Engagement

Candidate engagement scoring gives talent acquisition teams a way to gauge how interested a candidate is in coming to work for their company. By tracking and measuring candidates' interactions with their employer brand, recruiters see engagement metrics for every candidate. These AI algorithms help recruiters zero-in on candidates who are the most engaged and excited about the opportunity-at-hand.

## Intelligent Messaging

A chatbot by itself if just that—a list of pre-defined answers for anticipated questions. But an AI-powered chatbot is capable of learning and "thinking outside the script". This intelligent chatbot is an engagement game changer as you engage with candidates at the point of contact wherever and whenever is most convenient for the candidate. And the more it's used, the smarter your intelligent messaging gets. And what's the value of conversational AI, in general? Aptitude Research Partners found that **79% of companies**[iii] that invest in conversational messaging see value.
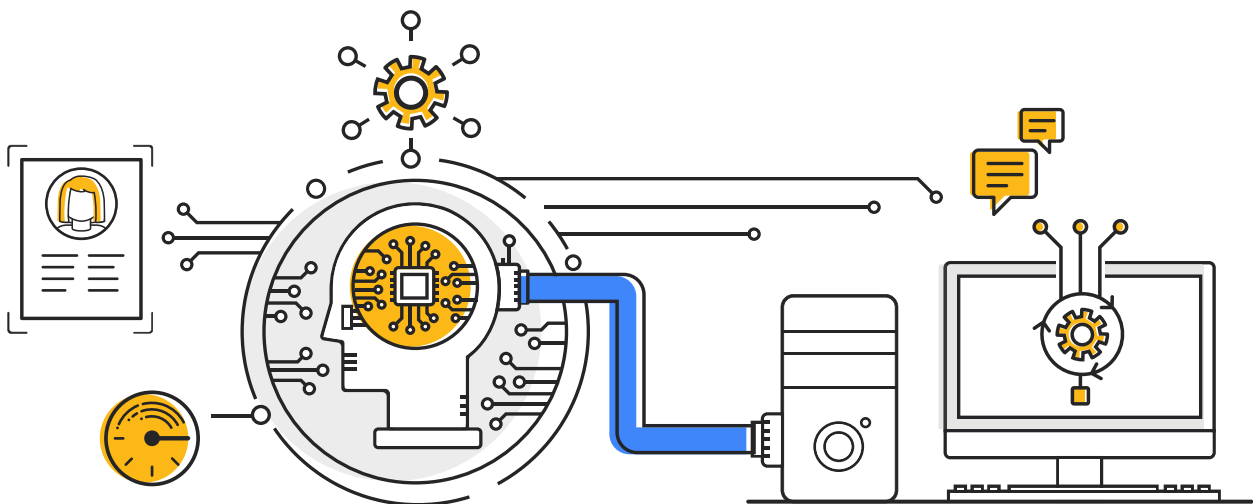
## Intelligent Interviewing

AI-powered video interviewing enables automatic assessment of facial expressions, tone, and verbal responses. AI interview technology can measure a candidate's smiles, eyebrow expressions, and verbal responses and give candidates a score compared to other candidates. Consider the importance for customer-facing roles like where human interaction is essential to success. With AI-powered interviewing, human bias can be mitigated and recruiter saves time.

## Events

At a point in time when it's vital for recruiters to spend time talking and interacting with candidates, AI can step in to do the work of storing, organizing, and recording candidate resumes. Through OCR, AI captures screenshots or uploaded images of resumes and then parses and tags them with important information for the hiring team to review at a convenient time. AI-powered intelligent messaging can also be scheduled to connect with candidates prior to the event or after the event to improve communication and the overall candidate experience.

## Mitigate Bias

AI holds tremendous promise to help organizations reduce both conscious and unconscious bias. AI can scrub data points reflective of race, gender, age, and more to ensure that initial screening efforts are focused on the candidate's skills and ability to do the job at hand. Conversely, AI can help organizations seeking to diversify their ranks find and reach a broader set of candidates than existing methods.

Used together, these AI applications hold great promise for TA professionals through the elimination of time-draining tasks, the elevation of new insights, and the reduction of bias that undermines organizational performance. Better recruiting results are the promise of AI-powered technologies; however, to get there, you must also be aware of the challenges that lie in wait.

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*"AI-infused throughout the talent acquisition platform is a great thing for recruiters as it will enable companies to hire quality candidates faster whilst simultaneously creating a magnificent candidate experience. A true win-win-win-win for sourcers, hiring managers, recruiters, AND candidates."*

**– William Tincup, President, RecruitingDaily**

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# Challenges with AI

For all the promise of AI-powered technologies, many practitioners approach the subject with fear. Let's unpack those fears so that they can fuel a more productive conversation as to how your company can leverage AI in TA successfully.

## The Fear of Obsolescence

The number one fear of most recruiters is that AI will take their jobs. The truth, however, is that recruiters who embrace the automation, analysis, and insights that AI provides will not only have job security, but also a more strategic role to play within their organization.

Think about it. Less time spent on the time-consuming work of sourcing, sorting, and screening applicants? That gives recruiters more time for personal interaction with both qualified applicants and hiring managers to accelerate identifying, interviewing, and hiring of the right candidate. Better outcomes mean more opportunity to grow for the AI-powered recruiter.

## The Fear of Failure

AI in TA is not a new concept. Early applications promised much and delivered little, and this led to resentment of technology investments with little return.

AI is not a magic wand nor is it a stand-alone technology that you simply bolt-on for recruiting success. The lessons of the first wave of AI in TA are giving rise to new applications in which AI is woven through the entire talent acquisition suite. This allows AI to learn, adapt, and evolve to the entire candidate journey. Have an applicant with a preference for text communications? That knowledge can be passed from CRM to ATS to Onboarding to ensure engagement so communications are received loud and clear.

The failure of the first generation of AI applications in TA created the lessons upon which today's systems are based. And one of those lessons is universal — technology alone does not solve problems. It is the combination of people, process, and technology that solve problems. Reflect on

*"Talent leaders are focused not on the AI, but on the outcomes of AI like unbiased screening, consistent communication, and better quality of hire.".*

**– Ben Eubanks, Principal Analyst, Lighthouse Research**

the failures of past implementations within your organization, and we suspect you'll find issues with more than just technology. Get people, process, and technology right, and AI will do wonders for productivity and performance.

## The Fear of Bias

Some of the most notorious failures of technology involve AI application releases with the best of intentions. In 2016, Microsoft released and then immediately pulled **Tay**, it's AI-powered chatbot, after it spewed offensive, racist statements on Twitter. While it wasn't programmed with such language, its ML algorithm learned from the worst elements of the Twittersphere. Without appropriate safeguards in place, Tay instantly reflected the worst behaviors it encountered.

The fear that AI will amplify the conscious and unconscious bias of its creators is, therefore, based in reality. However, Tay and other AI-gone-wrong stories have helped highlight the dangers of AI left unchecked. In fact, they have helped motivate the creation of tools to identify and mitigate the impact of bias be it based on race, religion, color, gender, identity, age, location or creed. Such stories have also helped organizations realize that diversity, equity, and inclusion require the three legs of people, process, and technology to stand.

Empathetic *people* exercising critical thought and judgment to shape *processes* that root out and address bias through technology will help ensure a diverse, qualified candidate set. With thoughtful oversight and implementation, that's the mission AI can help serve.

# Will AI Replace the Recruiter?

While we have already addressed the "Fear of Obsolescence" created by AI, let us speak even more clearly.

> "AI will **not** replace the recruiter. It will make them more productive, more strategic, and more valuable to employers".

AI will, however, automate repeatable processes and cause the role of the recruiter to *evolve*.

At the heart of AI is automation of routine and repetitive tasks. AI excels at quickly deriving decisions and optimization over highly complex problems that span numerous data sources and decision points. Automation is needed to extract the value of these decisions. AI is incorporated into technology systems to follow a set of orders programmed by humans, but in the end, it is up to recruiting staff to use their higher cognitive skills to review the data, derive results, assess opportunities, and develop strategies. The combination of AI and human recruiters will dominate the future of recruiting.

Consider AI more of a support function. Recruiters and AI will complement one another in the future. AI will help elevate and empower human interactions, big-picture thinking, creativity, and decision-making. AI will not, and should not, replace human judgment and experience. But AI can be a tool to identify the top candidates whom recruiters should engage to drive the best hiring options.
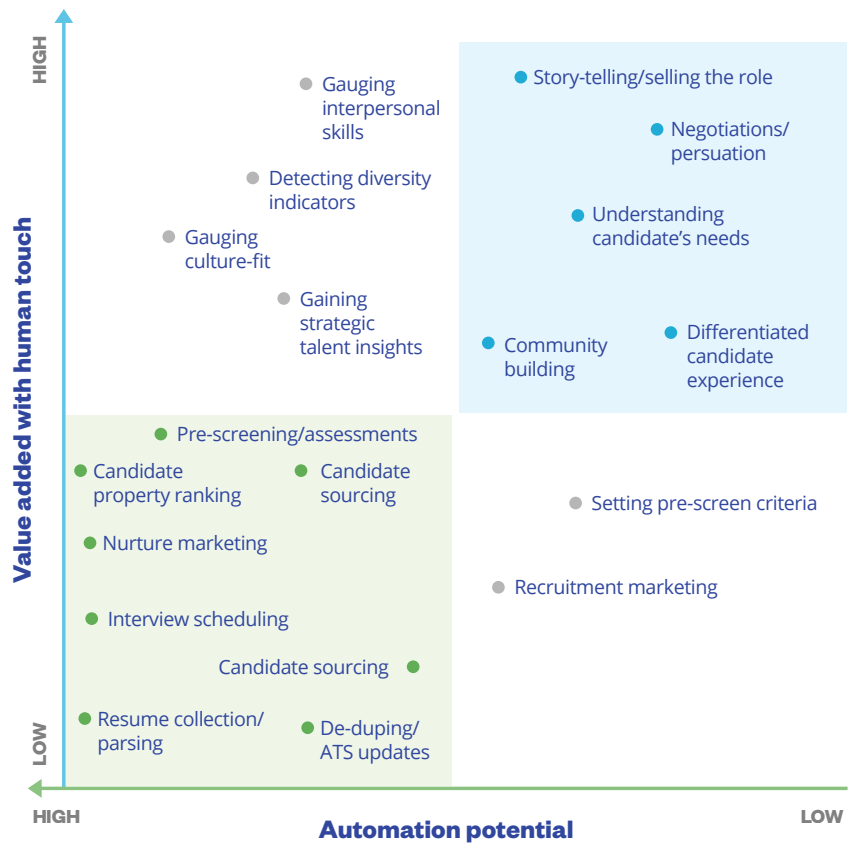
In the fall of 2019, when talent acquisition leaders and practitioners were asked what they thought would be the most important skills to hire for in the future, the most common replies were "cognitive skills...and the ability to make decisions".[iv] Is it any wonder then that AI holds such promise?

By allowing AI to automate processes and reduce repetitive tasks, recruiters can focus on the activities where they derive the most satisfaction and provide the most value such as selling the role, negotiations, community building, and personalization.

AI will improve the candidate experience as well as the recruiter experience.

LinkedIn also completed research that demonstrated where talent acquisition leaders expect AI to impact recruiting based on automation potential and value added of the human touch. This LinkedIn research expects AI to impact recruiting the most in resume collecting and parsing, de-duping of candidates, candidate sourcing, and interview scheduling.

## Areas where AI will impact recruiting



Value added with human touch (vertical axis, LOW to HIGH)

Automation potential (horizontal axis, HIGH to LOW)

- Gauging interpersonal skills
- Story-telling/selling the role
- Negotiations/persuation
- Detecting diversity indicators
- Gauging culture-fit
- Understanding candidate's needs
- Gaining strategic talent insights
- Community building
- Differentiated candidate experience
- Pre-screening/assessments
- Candidate property ranking
- Candidate sourcing
- Setting pre-screen criteria
- Nurture marketing
- Recruitment marketing
- Interview scheduling
- Candidate sourcing
- Resume collection/parsing
- De-duping/ATS updates

Source: LinkedIn

# 4 Ways to Recruit with AI at Your Side

Jobvite incorporates AI throughout our Talent Acquisition Suite to deliver unmatched results for our customers. For our team, AI is not a stand-alone product or technology for the sake of technology's sake. Rather, AI is a foundational element that helps optimize candidate interactions, automate manual processes, and provide a holistic view of how your entire recruiting process is performing.

When considering AI for inclusion in a recruiting strategy, talent leaders must work closely with the executive team to revisit how HR and Talent Acquisition can help achieve business goals and how AI will be a part of that solution.

We recommend applying **Jobvite's EVOLVE TA Framework** as part of this effort. EVOLVE helps you evaluate the effectiveness of your current recruiting efforts. It also enables you to develop strategies to improve performance across the full breadth of your talent acquisition efforts.

If you find, like many Fortune 500 companies, believe AI is part of your TA future, then it's time to prepare for that adventure. Here are the four most important steps for your organization to prepare and implement AI into your recruiting strategy:

# 1. Hire the right team

With products that are built with AI, having the right mix of people to meet your business AI goals goes far beyond a specific degree or experience. Yes, you'll want to have a trusted data and analytics partner to help implement AI. But the users of the technology, in this case, recruiters and other talent professionals, are just as important to ensuring your implementation and application of AI work. Look for individuals who have:

- **Soft Skills –** Those who can adapt to and excel under change. They'll need to be flexible, empathetic, and willing to learn.

- **Communication Skills –** By 2030, there will be a shift from roles using only basic cognitive skills to those using higher cognitive skills[v]. This includes advanced literacy and writing and the ability to influence and cooperate.

- **Business Acumen –** Necessary higher cognitive skills also include skill sets such as
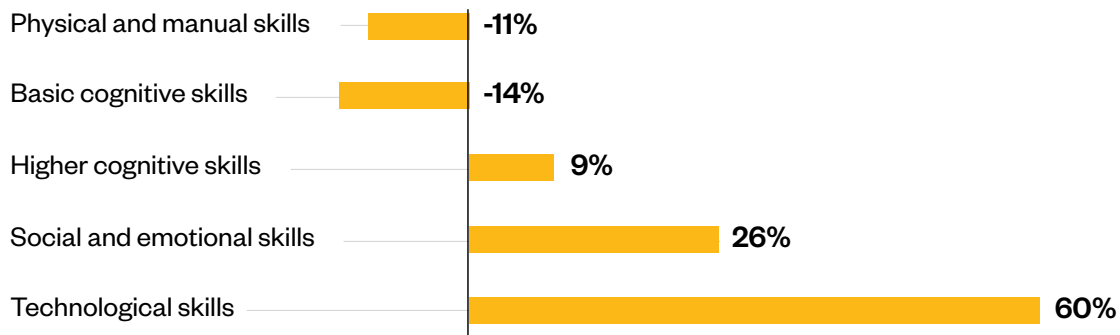
quantitative and statistical analysis as well as how to successfully address business issues through critical thinking and complex information processing.

- **Tech-Friendly (not to be confused with tech genius) –** Your team should have a fundamental interest in tech and data. Not necessarily data experts, or individuals who studied data or tech, but who understand AI challenges, its possibilities, plus are willing and excited to embrace it.

And the inclusion of a diverse skill set that goes beyond hard skills isn't simply a good employer's prep for AI. Recent research has revealed that AI is changing the required skills needed for a future workforce. So, whether you're hoping to get ahead of hiring to support new technologies or you're waiting to see how tech will change the landscape of your company, expanded skills will be needed at some point.

## AI and automation will change required skills for future employement

**Change in hours worked from 2016 to 2030**

| Skill | Change |
|---|---|
| Physical and manual skills | -11% |
| Basic cognitive skills | -14% |
| Higher cognitive skills | 9% |
| Social and emotional skills | 26% |
| Technological skills | 60% |

Source: The Atlas

## 2. Choose the right technology

There are many provider options, but not as much actual expertise. Look for a talent acquisition software provider that doesn't treat AI as a singular solution or some trending hype, and ask them the tough questions: Do they have experience with having AI and ML inherent in their solutions? Do they incorporate AI into not only their system development philosophy, but their approach to advancing talent acquisition solutions? Do they have a uniform framework to prevent and mitigate bias across AI and talent acquisition tools? Dig deep.

## 3. Build the right processes

Make sure to use a central, unified process. It's becoming increasingly common for recruiting workforces to be spread out from across the city to across the world. But this does not have to limit your ability to get everyone on the same page with an end-to-end talent acquisition suite. It's actually easier than ever to use centralized data and processes. With the ability to hold consistent and ongoing team status and strategy meetings virtually, to selecting a platform that

keeps all of your data in one place, your entire recruiting staff has more access than ever to apply the agreed upon processes.

Hiring practices must be repeated in a precise fashion every single time—especially where automation is involved. If not, data that is aggregated inappropriately will reveal itself in the analytics exposing inconsistencies right away.

## 4. Be agile in your approach

Change is in the very nature of technology and AI. AI talent acquisition systems will continue to evolve, and your talent team will evolve along with it. To help, integrate adaptive management and an iterative feedback loop into your recruiting strategy to solicit, capture, learn from, and apply feedback from both candidates and your internal recruiting team.

Also consider creating a Technology or AI Committee or Center of Excellence to lead technology initiatives in your organization. This group of stakeholders can champion your user adoption strategy, ensure your new technology is maximized, and creatively consider ways to innovate with technology throughout the business – and your wider company culture[vi].

> " By building AI and automation natively into the end-to-end platform and giving recruiters the ability to look at all segments of the candidate experience, talent acquisition leaders will be empowered to make better hiring decisions and provide a better candidate experience".
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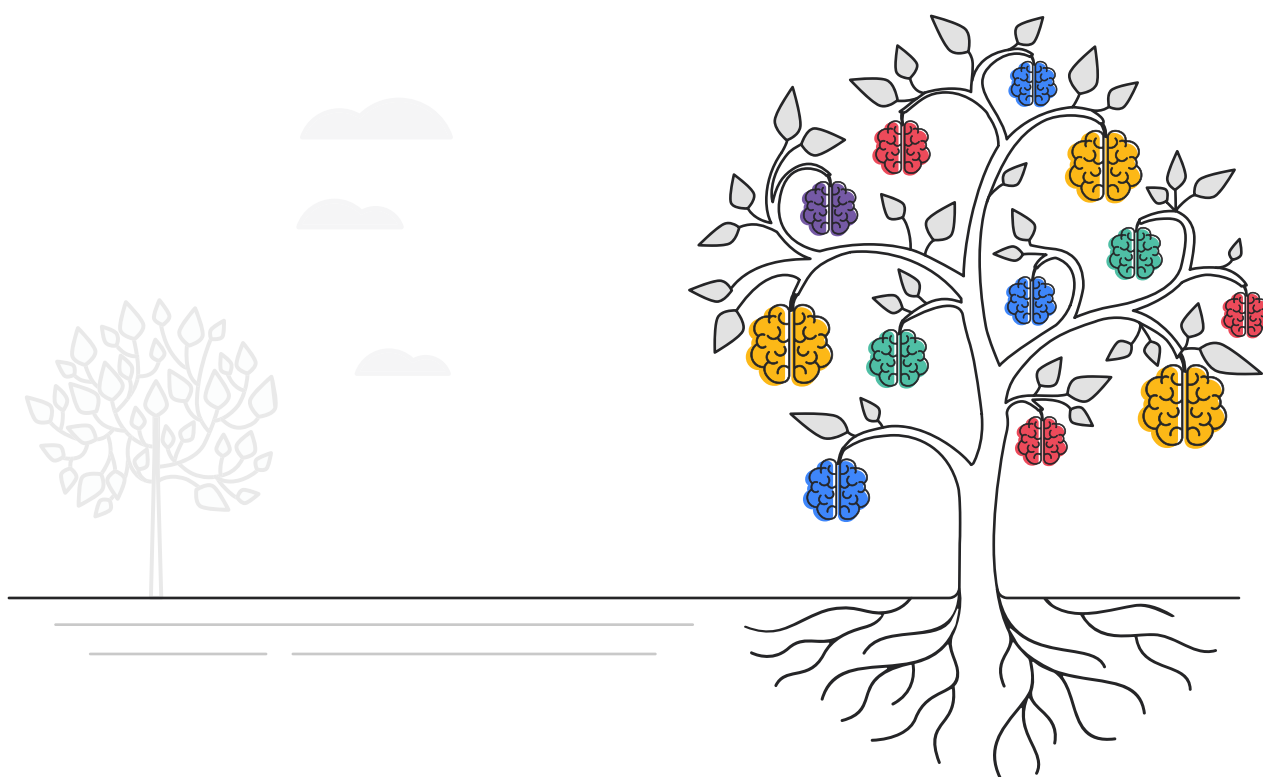> **– George LaRocque, Principal Analyst & Founder, HR Wins**

# There's Nothing Artificial About Results

There is nothing artificial about the efficiency, productivity, and performance gains that AI can deliver for TA organizations. We hope this guide has helped shine a light on the different types of AI, how they apply to aid recruiting, and that the fears of AI are unfounded when you arm yourself with the right people, processes, and technologies.

Interested in discovering how your team can recruit with intelligent insights, hire with greater confidence, and see measurable results? Reach out today and start the conversation!

**SEE HOW AI CAN HELP**

i    https://www.forbes.com/sites/falonfatemi/2019/10/31/how-ai-is-uprooting-recruiting/#688682c446ce

ii    https://www.aptituderesearch.com/wp-content/uploads/2020/06/Apt_Paradox_Report-0620_Final4.pdf

iii    https://www.aptituderesearch.com/wp-content/uploads/2020/06/Apt_Paradox_Report-0620_Final4.pdf

iv    https://www.aptituderesearch.com/wp-content/uploads/2020/06/Apt_Paradox_Report-0620_Final4.pdf

v    https://recruitingdaily.com/recruitment-2025-step-one-figure-out-what-skills-you-will-need/

vi    https://www.jobvite.com/future-of-recruiting/how-to-hire-the-best-skills-for-the-future-of-talent-human-tech/

vii    https://www.jobvite.com/hr/highlights-from-our-guide-to-increasing-user-adoption-for-new-technology/

# About Jobvite

## Recruit with Purpose. Hire with Confidence.

Jobvite is a comprehensive talent acquisition suite that offers a marketing-inspired approach to recruiting by intelligently attracting your dream candidates, automatically screening for the highest quality, engaging employees invested in their futures, and retaining the people who care the most about your organization by combining the power of data and the human touch.

**JOBVITE**