Abstract
We examine the state of artificial intelligence (AI) adoption within the Talent Acquisition (TA) function, based on a survey with HR leaders (n=477) across various organizations and industries. Our field data revealed that AI adoption within the TA function is not as pronounced and advanced as some recent reports might suggest. In fact, most organizations do not fully leverage AI in TA. We discuss the barriers and challenges to AI adoption in TA, propose solutions, and present ideas on how AI can enhance TA and its broader post-hiring context of managing people and culture in organizations. Beyond chatbots and virtual assistants, we develop four visions of the future frontiers of AI in TA.

Keywords
Strategic AI adoption in talent acquisition today:
Overcoming barriers and unveiling future possibilities
Talent acquisition (TA) has transformed from a reactive to a proactive function, shifting from simply filling positions to strategic business alignment. It’s no longer about filling roles but about building a targeted and skilled workforce. This shift aims to transform organizational capabilities, anticipate customer value, increase both employee and company productivity, and establish a self-reliant skills organization.

Today, TA is embracing an enhanced strategic role. It integrates technology not as a crutch but as a catalyst, redefining a more robust and modern Employer Value Proposition. In essence, the future of TA goes beyond attracting talent. It involves using integrated, multi-purpose technology to better deliver on strategy, focusing on skills and cultural evolution at all levels.

Anyone attending HR Digital events today quickly realizes that a large proportion of the solutions focus on talent acquisition or related topics (e.g., skills, talent marketplaces, diagnostics). Talent acquisition traditionally has an affinity for technology and is a driver for modern developments in HR. But is AI merely a new buzzword in TA, or does it have the potential to fundamentally transform recruiting?
To explore the state of technology adoption within the TA function, particularly concerning artificial intelligence (AI), a recent survey conducted by Mercer included 477 respondents from various types of organizations, as outlined in Table 1. The majority of respondents (approximately 44 percent) were for-profit multinationals, while organizations operating in one country constituted the next biggest group at 37 percent. The bulk of respondents (approximately 80 percent) held job roles such as TA leader or HR leader (C-level, Head, or Vice President). In total, the respondents represent 27 primary industries, with the majority stemming from Financial Services, Healthcare, Technology, Life Sciences, and Manufacturing. Further, more than 50 percent of companies have less than 5,000 employees.

Despite its tremendous potential, the results generated from our field data revealed that AI adoption within the TA function is not as pronounced and advanced as some recent reports might suggest. To unleash the full potential of AI as a TA tool, organizational barriers, such as incompatible systems, need to be overcome. We will showcase what these barriers are, how they can be addressed, and where TA can most benefit from AI adoption in the future, based on our field data.

Table 1.
Descriptive Statistics of Survey Participants

<table>
<thead>
<tr>
<th>Participants role</th>
<th>52% Talent Acquisition Leader</th>
<th>29% HR Leader (CHRO/Head VP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization type and role</td>
<td>For-profit multinational</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>For-profit organization (single country)</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>Non-profit, NGO (non-governmental organization or academic institution)</td>
<td>15%</td>
</tr>
<tr>
<td>Employer size</td>
<td>Less than 500 employees</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>500 - 999 employees</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>1,000 - 4,999 employees</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>5,000 - 9,999 employees</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>10,000 - 19,999 employees</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>20,000 or more employees</td>
<td>12%</td>
</tr>
</tbody>
</table>

Industry

- Manufacturing: 12%
- High Tech and Other Tech: 11%
- Healthcare: 10%
- Financial Services: 7%
- Life Sciences: 7%

N=477
Tech-scaling and AI integration

If there’s one function taking the lead in early HR tech adoption, it’s TA. In fact, with leadership support and resources, TA organizations are integrating an average of at least two TA technologies. For instance, with the shift of virtual recruitment from a fad to mainstream, respondents indicate that 81 percent use it for screening, 60 percent for interviewing (across all positions), and 50 percent for candidate evaluation. AI is similarly poised to take center stage, especially in talent sourcing where 38 percent of respondents said sourcing and engaging talent for pipeline purposes (employer-centric matching) is the most popular use of AI in TA. In a close second, 28 percent of respondents indicate AI-generated data analytics are used in TA practices, close to 28 percent of respondents utilize AI to create job posts on social media, and 26% of respondents said they use AI to help candidates find the right position. The latter, called candidate-centric matching, is an initiative that contributes to an enhanced Employer Value Proposition, a crucial area for an organization to generate a competitive advantage on hiring in the post-COVID era.

Figure 1. How AI is used as part of the Talent Acquisition practice

- Source and engage talent for pipeline purposes (employer centric matching) 40
- Analyze internal TA, recruitment data 28
- Create social posts 28
- Help candidates find the right position (candidate centric matching) 26
- Analyze market data/learn about HR Tech/TA/ATS/CRM market trends 24
- Source compensation data/benchmarks 20
- Source/learn about TA technology vendors 11
- We don’t/won’t use AI as part of our TA practice 42
So, in more detail, how is AI utilized in the recruitment process today? The most common answers to this question are summarized in Figure 2. Most respondents use AI to create job descriptions, enhance their communication with candidates through mobile and text message communications, and schedule interviews. Additional applications include screening resumes, with a focus on eliminating bias, assisting candidates with the application process for open positions, and assessing and scoring candidates’ skills related to the position requirements. The latter three applications, respectively, are used by just one-fifth of the respondents.

**Figure 2.**

**How AI is used in the recruitment process**

- Create job descriptions
- Communication via mobile apply and SMS texts
- Schedule interviews
- Screen resumes with a focus on eliminating bias
- Assist candidates with application process for open positions (captures data and answers questions)
- Assess candidate's skills related to position requirements, scoring candidates
- Conversational AI with potential candidates/active candidates
- Screen resumes
- ‘AI-first recruiting’ - total initial recruitment process (application through scheduling interview is deployed using AI)
- Other
- Unsure
- None of the above
Challenges in Technology Adoption

Despite their appetite for technology adoption, many TA teams and organizations continue to experience adoption challenges that include a lack of system integration, understanding, and knowledge of the applications. It should be noted that the challenge of systems integration is one that cuts across the entire organization, not just TA. Our data also show TA dragging its feet in some aspects of implementing new AI solutions. Contrary to reports suggesting an advanced state of AI adoption today, data indicate that many organizations have not yet discovered or otherwise enabled the full potential of AI in their TA practice. In fact, only 14 percent of companies are using AI tech as part of their TA technology stack. Forty-two percent of companies report that they do not currently and do not plan to use AI as part of their TA practice. The biggest barriers of technology adoption to include AI are shown in Figure 3. The top three barriers are lack of systems integration (47 percent), lack of understanding about efficacy of tools (38 percent), and lack of knowledge of recruiting tools (36 percent).

Figure 3. Barriers to TA technology adoption

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills gaps between what we need and skills that job seekers possess</td>
<td>65</td>
</tr>
<tr>
<td>Hiring managers’ lack of direction or unreasonable expectations during the recruitment process</td>
<td>63</td>
</tr>
<tr>
<td>Not able to find and attract top talent according to business requirements</td>
<td>59</td>
</tr>
<tr>
<td>Lack of data-driven &amp; technology enabled hiring process</td>
<td>36</td>
</tr>
<tr>
<td>Overall long hiring cycles</td>
<td>32</td>
</tr>
<tr>
<td>Unstructured and time-consuming interviews</td>
<td>26</td>
</tr>
<tr>
<td>Finding market-savvy TA/recruitment talent to hire</td>
<td>10</td>
</tr>
<tr>
<td>Not able to shortlist and screen the right candidate for interviews</td>
<td>9</td>
</tr>
<tr>
<td>Low on-boarding rates after interviews</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
</tr>
</tbody>
</table>
Solutions to AI adoption in TA

Looking at the top three barriers organizations face the structural and knowledge challenges of the early adoption phase seem to dominate. The widespread prevalence of a lack of system integration is common from the early years of organizational computerization when firms started adopting IT systems. There are similarities between the early adoption and integration phases, as both revealed the need to streamline process to enhance the efficiency of the respective activity.

A solution, fundamentally, necessitates investments in interfaces that facilitate integrations between AI tools and pre-existing systems. Organizations must ensure that the AI system is compatible with other software and platforms in use. Moreover, the application of middleware solutions that act as bridges between various systems and platforms can be advantageous.

Addressing the lack of understanding and knowledge about efficacy and recruiting tools might involve providing training programs and workshops to educate the talent acquisition team about the practicality of AI tools. Consulting outside experts for specialized training sessions may also be valuable.
Additionally, establishing knowledge-sharing platforms, where employees can learn from one another’s experiences and share insights about the usage and benefits of AI tools, proves beneficial. Prior to any AI implementation, organizations might initiate pilot programs, allowing a subset of the team to experiment with AI tools and validate their efficacy before a full-scale implementation.

However, it is also quite conceivable that it is not the technology that is the problem, but an unclear understanding of the recruiting processes or an immature strategy. If neither the problem nor the strategy are clearly defined, even fundamentally good AI components cannot conjure up a good process.

While the survey data reveal the challenges organizations confront concerning technology adoption, the nature of these challenges unveils the current state of AI adoption in talent acquisition. Organizations appear to lack a comprehensive and thoroughly considered AI strategy and roadmap — a fundamental initiative in its own right. While the exact strategy should be tailored to each individual company, firms should initially develop a strategy and roadmap for AI adoption in TA, entailing the definition of clear goals, metrics, and Key Performance Indicators to measure the success and Return on Investment (ROI) of AI implementation. Concurrently, given widely existing sentiments regarding privacy and data usage, organizations must ensure that AI tools adhere to legal and ethical standards, respecting data protection and anti-discrimination laws. Regular (internal) audits of the AI systems are imperative to assure fairness, accountability, and transparency in the recruitment process.
Future prospect of AI adoption in TA

Today, chatbots and virtual assistants are becoming increasingly prevalent in the early stages of the recruitment process, where these AI tools can answer common queries from candidates, schedule interviews, and even conduct initial assessments, further optimizing the talent acquisition pipeline and freeing up vital time for recruiting professionals to focus. There is, however, more that AI can do for TA and its broader post-hiring context of managing people and culture in organizations. Looking beyond chatbots and virtual assistants, here are four visions of what the next frontiers of AI in TA can look like.

**Enhancing Diversity, Equity, Inclusion and Belonging (DEIB)**

Hiring decisions are often not free from subjective judgments or implicit biases. AI-supported hiring platforms can harness vast amounts of data to provide insights that were previously unimaginable. Hence, an AI-based TA strategy has the potential to foster DEIB by leveraging algorithms that are designed with the goal of being unbiased. Once DEIB needs are considered in algorithm design, organizations can ensure that their hiring processes are largely free from unconscious biases that have historically plagued recruitment. AI can highlight discrepancies in diversity hiring, suggesting corrective measures and promoting a more inclusive hiring process. Thus, a firm can strengthen its DEIB goals through AI tools and execute strategy more efficiently and effectively.

Experiences from Europe also show that the use of AI in the context of DEIB can be a door opener to overcome skepticism (which is much more pronounced in Europe) regarding the use of AI in recruiting and especially in the selection process. Since many organizations are aware of an existing bias in the selection process, but this is actually not easy to avoid due to the various human touchpoints, the added value of AI is often quickly recognized here and helps to recognize AI as useful and ethical for other elements of the process as well.
2 Predictive analytics
As AI systems evolve, their capabilities in predicting the future will also improve. The more data available about a candidate and the workforce in general, the more AI will be able to predict a candidate’s career trajectory, cultural fit, and even their compatibility with specific teams or projects. As how organizations describe their corporate culture does not necessarily reflect the culture of respective teams, AI-powered predictive analytics have the capability to suggest a candidate’s fit into a respective team in terms of competence, personal traits and characteristics. The typical ‘I-didn’t-fit-in’ risk that leads employees to quit shortly after hiring could be eased and improve the relationship quality in teams that will positively contribute to individual motivation and team performance. At the same time, AI can also help to identify gaps in the workforce and consciously add “cultural add” when hiring, i.e. deliberate differences to the existing team in order to achieve different mindsets and skills with the same cultural fit.

3 Interviewing in the metaverse
With further adoptions of headsets, virtual and augmented reality (VAR), combined with AI, have the potential to disrupt interviewing and skills assessments. Soon, a job candidate may physically be sitting at home while being immersed in a VAR simulation of a day in their prospective job role. TA experts supported by AI applications would be able to create and deploy real-life job simulations and even create assessment centers in a very efficient way. This will, again, lead to cost-savings and a reduction in subjective judgments which will also give the candidate a more realistic experience of what to expect in the new job role.

4 Training and development
An AI-centered TA approach will benefit training and development in two major ways. First, it will benefit the organization’s customized AI system as it gets exposed to more data and a variety of scenarios that will sophisticate the organization’s AI algorithm. That, in turn, will lead to making training and development-related recommendations and decisions more refined and highly personalized. The AI systems of the organization and resulting algorithm thus become unique and develop towards a centerpiece of an organization’s competitive advantage for managing social complexity, skill development and career development. Second, AI can be utilized to offer a personalized candidate experience: i.e., a tailor-made experience for a candidate, from personalized job recommendations and custom-tailored interview feedback to an individualized training and development plan, taking a candidate’s traits, personal interests, and job preferences into account.
Critical reflection

While the potential of AI in talent acquisition is vast, it is essential to approach such tools with caution. There are concerns about data privacy, algorithmic biases, and the potential dehumanization of the recruitment process. Organizations will need to ensure transparency in their AI-driven processes and continuously monitor and refine their algorithms to prevent inadvertent biases.

The fusion of AI with talent acquisition marks a paradigm shift in the way organizations approach hiring. While challenges exist, the potential benefits in terms of efficiency, accuracy, and inclusivity are immense. As technology continues to advance, it is incumbent upon businesses to harness its power responsibly, ensuring that they attract the best talent while upholding the highest ethical standards.

Ultimately, integrating AI and other technology is, to a lesser extent, about structural challenges concerning IT processes, purchasing the right software, and developing productive relationships with technology providers. It is essentially about creating an organizational culture that encourages digital adoption, trains staff to utilize these tools, and shares data in a transparent way that increases clarity and alignment. TA's challenge in the era of artificial intelligence adoption is clear: innovate or stagnate.

And as always with the introduction of IT systems: IT never solves the problem alone. If the possibilities of AI are considered in combination with a strong and future-oriented TA strategy, with the right organizational setup and with appropriately differentiated processes, then AI has real potential to give the company a competitive advantage. However, if AI is viewed almost uncritically as a new “wonder weapon” that will help to eliminate all problems, then the approach will fail — no matter how fascinating the technology is.

This research was a collaboration between St. John’s University of New York and Mercer (US) LLC.

Authors

Sven Horak is a Professor of Management at The Peter J. Tobin College of Business at St. John’s University in New York.
horaks@stjohns.edu

Tracey Freiberg is an Assistant Professor of Economics at The Peter J. Tobin College of Business at St. John’s University in New York.
freibert@stjohns.edu

Boncho Bonchev is a Senior Principal with Mercer’s Transformation services focusing on Talent Acquisition.
boncho.bonchev@mercer.com

Michael Eger is a Partner with Mercer’s Transformation Europe and Lead for Attraction, Recruiting and Retention.
michael.eger@mercer.com