Technology in Human Resource Management: Key Considerations

In recent years, we have witnessed rapid technological advances, particularly in artificial intelligence (AI). Innovation has taken center stage in organizations of all sizes and across industries. The drive to streamline operations and improve efficiency has led organizations to rethink and redesign processes in many areas. There is no denying that we are in the midst of a digital transformation.

Human resources is one of the key business functions undergoing this shift toward automation. Today, processes such as recruiting and candidate selection, training and development, and performance evaluations can be handled almost entirely through automated systems, with just a few clicks and the appropriate system and algorithm settings.

In this article, I want to reflect specifically on the changes in reshaping recruitment and selection and the growing use of AI in hiring. I recognize that we are living through a period of profound change, but I also believe we need to strike a balance. We must embrace innovation while showing empathy, acting responsibly and thoughtfully, valuing human relationships, and, above all, holding on to our humanity.

For nearly 10 years, I worked as an HR manager at a large company involved in manufacturing and sales. I reviewed thousands of résumés and interviewed hundreds of candidates, from frontline workers to managers. And one thing I can say with certainty is that AI cannot replace genuine human connection: looking someone in the eye, taking the time to understand their story, picking up on what goes unsaid, and recognizing the spark in their eyes that reveals how much they want – and need – that opportunity.

I remember a candidate who applied for a production-floor position as a cutting assistant. Given the relatively low pay, we were looking for someone with limited experience, perhaps someone just starting out. As I reviewed the applications, however, I came across the résumé of a seasoned professional. He had years of experience and had previously supervised an entire department. From a purely practical standpoint, an HR professional might have said, “I won’t schedule an interview because this candidate doesn’t fit the profile we’re looking for.” But I saw things differently and decided to invite him in. During the interview, he shared some of his story, putting any possible reservations to rest. The job was his! He stayed in the role for several years, became one of the department’s top performers, and eventually advanced to better positions. I often wonder what would have happened if an AI tool or automated recruiting platform had screened his résumé. Chances are that he would never have made it through the initial screening.

On another occasion, I received a handwritten résumé. At the bottom, the applicant had written, “All I need is a chance.” There were few keywords related to the position, but every handwritten word conveyed determination and a willingness to work hard. I scheduled an interview, and what I learned surprised me. She had a wealth of work experience that she had never included in her résumé. Her life story revealed skills and abilities that were nowhere to be found on the page – at least not in the way an AI tool or recruiting platform would expect to see them. Yet sitting across from me was an exceptional professional. We hired her, and she went on to distinguish herself throughout her time with the company.

These experiences illustrate the scale of the challenge ahead. Recent studies highlight this same tension. Research by Vidal et al. (2026), Mori et al. (2025), and Paramita et al. (2024) shows that technology can save time and reduce costs, particularly in the early stages of recruitment and selection, because it can process large volumes of data. For example, organizations can automate repetitive tasks such as résumé screening and use chatbots to speed up communication with candidates.

But alongside these benefits come significant concerns, and that is where careful judgment is needed. Academic research points to obstacles such as the lack of direct, personal contact between employers and candidates (Paramita et al., 2024). Recruiting and selection technologies can also exhibit bias (Vidal et al., 2026), potentially putting certain groups at a disadvantage. Candidate privacy and the use of applicants' personal information are additional concerns (Vidal et al., 2026).

As we have seen, technology can make important improvements to the hiring process, but it also raises difficult questions. What about the résumés that were screened out? Did those candidates truly lack the potential to succeed in the role? And what about the résumés that made the cut? Were those applicants genuinely qualified, or had they simply presented their experience in a way that was more likely to get them noticed? What is the experience like for a candidate who interacts with a chatbot or receives feedback from one? Can we really place complete trust in an algorithm? What about bias? How can we make hiring more transparent and fair?

There are no simple answers, especially since research on this topic is still limited. In Brazil, regulations governing the use of AI are also still being developed. Even so, I believe these technologies are here to stay.

My purpose in raising these questions is not to discourage the use of technology. Rather, it is to emphasize the importance of finding a balance. Technology can be a valuable ally, as long as HR professionals use it thoughtfully – as a tool that supports human interaction, not one that replaces it. And, of course, we must always respect the life story and experiences of every person seeking an opportunity.

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