Predicts 2024: The Impact of AI on HR Technology Transformation

> New waves of innovation in AI, ongoing talent challenges, and macro trends, such as climate change, make managing HR technology portfolios more challenging. HR technology leaders should use this research to prepare for the next set of capabilities that will challenge the status quo.

Overview

Key Findings

- Much of the early excitement around generative AI (GenAI) is centered around its use for gaining process efficiencies. HR virtual assistants (HRVAs) are expected to streamline most administrative employee-facing tasks, with the potential to reduce HR team headcount.

- Despite ongoing hype around GenAI, organizations are wary of applying it to talent processes, especially for content creation and summarization, due to limited in-house legal expertise and insufficient proof on the reliability of GenAI-created content.

- Historically, climate change was not considered in talent strategy. Leaders should be increasingly mindful of climate change, using predictive analytics to understand how extreme weather affects talent and productivity.

- A new generation of AI-native HR application architectures will emerge. AI is no longer just "cool" in HR technology; organizations expect AI to deliver automation, decision augmentation and personalization.

Recommendations

HR technology leaders responsible for HR technology transformation should:

- Meet employee expectations and generate HR efficiencies and productivity gains by investing in an HRVA. Monitor adoption, employee satisfaction and whether employees feel they could complete the tasks they undertook.

- Establish responsible use of GenAI in HR by publicizing consistent organizational approaches to AI and designating a champion accountable for the responsible development and use of AI in HR. Establish principles for AI model development and participate in industry or societal AI groups.

- Build, staff or upskill talent analytics functions and provide the technology needed to support analysis of traditional HR data against external datasets, such as predicting extreme weather events and their resulting effect on the workforce.

- Learn how AI-native applications change expectations for application life cycles and user experience. Explore, test and invest in existing AI-native applications in the talent acquisition, skills and talent marketplace domains, and newly released applications in HR services (especially conversational UI).

Strategic Planning Assumptions

By 2027, less than 15% of customers with access to GenAI summarization or content creation in their talent management applications will enable either of these capabilities.

By 2028, organizations with employees successfully completing 90% of their HR tasks through a conversational interface will reduce HR team headcount by less than 5%.

By 2028, 35% of talent analytics teams in large global organizations will perform predictive analysis on the impact of extreme weather events on talent, recruitment and overall worker productivity.

(Replay) By 2026, a new AI-native core HR application will emerge to challenge incumbent cloud human capital management (HCM) suites.
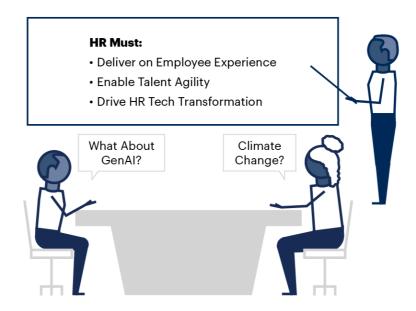
Analysis

What You Need to Know

HR technology continues to be the No. 1 area of investment for the third year in a row, as HR increasingly relies on technology to meet a growing list of business demands. [1] These demands include fulfilling employee experience needs, enabling talent agility and continuing HR tech transformation. Ongoing talent challenges underpin these demands, as HR leaders struggle to find talent with enough in-demand skills and expect talent competition to rise. [2,3] Of course, HR tech trends do not occur in a vacuum and are influenced by the news of the day. 2023 was arguably the year of AI, as the impact of GenAI innovations dominated headlines; but we cannot ignore it was also the hottest summer documented, meaning 2023 was also on track to being the hottest year on record. [4] While GenAI is providing some solutions to ongoing talent challenges, GenAI and climate change are also creating new talent challenges. Societal macro trends, including climate change, talent shortages and the changing nature of the human-AI relationship, must inform how HR tech is leveraged to drive business value. Gartner's 2024 HR technology transformation predictions are centered on the following domains:

- Applied AI and GenAI's effect on talent management (TM) and employee experience (EX)

- Climate change's effect on talent and productivity

- The emergence of new AI-native applications in HR

Figure 1: Societal Trends Exacerbate Talent Challenges for HR

Societal Trends Exacerbate Talent Challenges for HR
Illustrative

Source: Gartner
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Strategic Planning Assumptions

Strategic Planning Assumption: By 2027, less than 15% of customers with access to GenAI summarization or content creation in their talent management applications will enable either of these capabilities.

Analysis by: Chris Pang

Key Findings:

Machine learning and AI technology already exist in many HCM offerings. GenAI adds to these existing capabilities with enhanced search, predictive analysis, content creation and summarization functions. Content creation and summarization, which generate text for performance reviews, job requirements, career paths and development, and other talent processes, have been promoted by providers recently. We expect and advocate end-user caution in this area because key processes, such as recruiting, performance management, learning and development and compensation planning, have a real impact on employees and managers.

GenAI has the potential to improve the data and insights fed into key decisions; however, organizations must navigate limited proof/data on the reliability of GenAI-created and summarized content. Reliability is important because CHROs need to trust that GenAI understands the subtle yet important nuances of personal situations and explanations.

Furthermore, most offerings today limit customers from manually tailoring AI models, which can be a concern because most organizations have cultural and organization nuances that may not be fully recognized or accounted for by a "standard" out-of-the-box AI configuration. Many vendors and end-user organizations are still early in their journey of understanding and implementing responsible AI principles, which will limit enabling GenAI capabilities in the short term.

Market Implications:

Content creation and summarization have the potential to greatly improve efficiency, relevance, accuracy and equity across key HR and talent processes. It potentially means better wording in job descriptions to remove unconscious bias, less manual effort and interpretation needed in performance reviews, and better career pathing. Importantly, this technology can uplift less capable managers and help employees better progress in their organization.

Recommendations:

- Investigate how GenAI benefits talent management processes for your industry.

- Determine the initial use cases in which you can rely on purchased capabilities or collaborations with trusted vendors to introduce GenAI capabilities. Understand your vendor's stance on AI ethics.

- Examine and quantify the advantages and limitations of GenAI in improving candidate, employee and manager experience. First, use GenAI to improve an existing process.

- Use proof-of-concept opportunities with your provider. Use existing data that you have complete confidence in so you can objectively evaluate the output.

- Determine the appropriateness of predetermined AI models provided by your vendor for each use case.

- Understand how your provider architects and provisions GenAI to determine if it can be used. Many providers use a mix of in-house and hyperscaler provider cloud services, which causes issues if the CIO/security team disallows third-party provider access/data processing location. Organizations may encounter situations in which some AI services are deliberately disabled.

- Fully understand and investigate your vendor's stance on AI ethics by seeking guidance and input from your own legal team.

- Mitigate unplanned expenses from GenAI capabilities by involving your procurement team early and building in pricing protection should you leverage new AI services.

Related Research:

An Early Look at Corporate Guidance on Generative AI

Innovation Insight: Generative AI in HR

How to Support Responsible Generative AI Use in HR

Strategic Planning Assumption: By 2028, organizations with employees successfully completing 90% of their HR tasks through a conversational user interface will reduce HR team headcount by 2% to 5%.

Analysis by: Helen Poitevin

Key Findings:

- Consumer experience with OpenAI's ChatGPT changes user expectations related to conversational interfaces. A greater number of people are more willing to engage with a conversational interface to gain information or to make a request that results in a task being accomplished (e.g., text or code generation, in the case of ChatGPT).

- The top three GenAI use cases selected by HR leaders were administrative tasks/policies/document generation (53%), job descriptions/skills data (52%) and employee-facing chatbot (51%). HR leaders were asked to select up to three use cases that their organization planned to prioritize in the next six to 12 months. [5]

- When asked, HR leaders on average expected a 7% decrease in HR headcount following the implementation of GenAI. [5]

- Technology providers are accelerating investment in HRVAs, sometimes as part of an enterprise conversational platform offering. We find it less likely that HCM suites or core HR solutions can meet these requirements because they tend to focus on interactions with their own systems, rather than orchestrating across many systems and services providers.

- By including integration and task orchestration in their HRVA investments, enterprises can meet employee expectations to receive highly personalized responses to questions and to directly accomplish tasks from within the conversational interface.

Market Implications:

Complex Employee Expectations — From an employee perspective, most HR tasks meet some combination of the following characteristics: infrequent one-off tasks, infrequent but related tasks in a complex series, administrative in nature, linked to a change in job or personal context, unrelated to job responsibilities. The employee's expectation is to accomplish these tasks as quickly as possible, without wasting time combing through general information. Employees want an answer relevant to their individual case, and to accomplish the necessary tasks with minimal fuss. This scenario represents a unique user experience design challenge: designing for people to be highly satisfied with the value received while spending the minimum time possible engaged with the solution.

Increased Competition Between Technology Providers — A new generation of HRVAs is poised to meet this design challenge, using a combination of GenAI and experience orchestration technologies, within a conversational interface. These solutions will greatly increase HR team efficiency, removing tasks that HR now needs to complete to address specific cases, answer questions, follow-up on task completion or complete tasks on employees' behalf. With the aid of well-implemented technology, employees can complete a significant portion of their HR tasks within the conversational interface, up to 90%. This shift will happen despite increasingly complex HR application and services landscapes; it is not surprising to encounter well over 150 HR solutions in place in large complex global organizations. Because of these emerging capabilities, the HRVA market will face greater client expectations and increased competition from others tapping into this opportunity.

Impact on HR Headcount — Per Gartner's 2023 HR Budget and Efficiency benchmark, the average ratio of HR staff to employees is 1-to-58. [1] In an organization of 10,000 employees, HR headcount would be 172. A 2% to 5% decrease would mean a reduction of three to nine HR full-time equivalents, likely following natural attrition. This scenario would be the result of a cumulated number of tasks being removed through automation, and a recombination of remaining workloads and specialties into new roles. The ratio would then be between 1-to-59 and 1-to-61. We anticipate this shift would only happen if employees felt they could successfully complete 90% of their HR tasks within a conversational user interface. We anticipate between 10% and 15% of organizations can achieve this over the next five years. This change will in part depend on stability in the volume and complexity of administrative HR tasks, which can be linked to regulatory conditions or related factors. Organizations with very lean HR functions will likely pivot existing HR headcount to other strategic HR and talent activities. However, in organizations with larger HR teams, we anticipate a decline in HR headcount following investments in improved employee experience through automation.

Recommendations:

- Meet employee expectations when piloting GenAI in HRVAs by combining it with integration and experience orchestration platforms and composing high-value employee experiences and journeys, like benefits enrollment, reimbursements, annual tax processes, or less frequent personal or career changes.

- Generate HR efficiencies and productivity gains by investing in an HRVA and monitoring adoption, employee satisfaction and whether employees felt they could complete the tasks they undertook.

- Aim for HR value by focusing beyond headcount reduction to identifying differentiated services that support unique industry- or department-level talent initiatives that drive organizational effectiveness and enterprise success.

- Anticipate significant change management and experience design efforts to get employees to see completing tasks through an HRVA as their preferred way of getting things done.

Related Research:

HR's Perspective on Generative AI's Impact on the Workforce, by Industry

Plan for Generative AI's Impact on Jobs

Use-Case Prism: Artificial Intelligence for HR

Implementing Generative AI in HR Benchmarking Report

Strategic Planning Assumption: By 2028, 35% of global organizations' talent analytics teams will measure indicators of extreme weather events, and the effect of these events on worker productivity, to inform talent strategies.

Analysis by: Laura Gardiner

Key Findings:

- People's exposure to climate hazards will increase in the near term; however, the level of risk differs substantially among and within regions and will depend on concurrent near-term trends in vulnerability, exposure, socioeconomic development and adaptation. [6]

- Extreme weather events can cause work interruptions, resulting in decreased productivity. Affected workers experience productivity loss from emergency evacuation, power interruptions, unsafe air, difficult road conditions and complex public transportation. [7]

- The cause, impact and mitigation efforts of these interruptions are differentiated among worker types (i.e., remote, hybrid, on-site) and will require HR teams to account for impacts to technology needs, workforce planning and potential worksite relocation. Additionally, some industries will need more workers, such as healthcare, construction and manufacturing. [8]

- Organizations that monitor these indicators can proactively assess and mitigate risk, thereby creating a competitive advantage through reduced productivity losses compared to their competitors.

Market Implications:

As the frequency of weather-related interruptions increases, organizations can proactively reduce productivity loss by establishing the data infrastructure to model the greatest potential impact and design talent strategies to minimize loss. These measures include workers' home location, commute options, hybrid or remote work potential, and required exposure to outdoor elements. Additionally, organizations will need to account for increased or decreased labor demand depending on their industry, location and business model.

Many organizations have weather-related emergency procedures for on-site workers, but they are traditionally part of an emergency operations plan designed to protect the health and safety of employees. Organizations also assume that enacting an emergency procedure is a rare occurrence. In today's world, the frequency of weather emergencies indicates a need to proactively transition what was emergency planning into strategic planning that accounts not only for worker safety, but also enables continued business operation.

It is standard functionality for packaged talent analytics solutions to connect HR data to other areas of the business as well as external datasets. However, few if any solutions have off-the-shelf models to monitor the productivity impacts of external hazards. Organizations with mature talent analytics functions using generic business intelligence platforms and organizations leveraging talent analytics consulting or business process outsourcing can build these models today, while other organizations will need to build additional capability before actualizing these models. Many demand-driven scheduling solutions for retail organizations account for weather impacts on customer demand and could potentially be leveraged to inform talent analytics.

As talent analytics begin to include more geographic risk factors, organizations will need to design policies and talent strategies that minimize productivity loss. Many of these strategies will have upfront costs requiring talent analytics teams to not only measure risk but cost implications of inaction and mitigation to support the business case.

Recommendations:

- Build, staff or upskill talent analytics functions and provide the technology they need to support analysis of traditional HR data against external datasets, such as weather.

- Monitor productivity impacts from extreme weather in days/hours of lost productivity by geography and worker type to set a baseline for initial strategy planning.

- Assess the impact to different worker groups and geographies as part of overall risk assessment and develop related mitigation strategies to minimize the cost of interruption.

- Model future impacts of the current workforce with and without mitigation plans to assess ROI on various strategies.

Related Research:

Ignition Guide to Building a Metrics Dashboard for HR

Innovation Insights for Talent Analytics Technology Options

Replay Prediction

The replay prediction is a prediction from a previously published report that is so significant that it is being republished here.

Strategic Planning Assumption: By 2026, a new AI-native core HR application will emerge to challenge incumbent cloud HCM suites.

Analysis by: Helen Poitevin, John Kostoulas

Key Findings:

- Cloud HCM suites are the undisputed backbone of modern HR tech strategies. Gartner estimates more than 75% of organizations today use them as the core component of their landscape. [9] These suites were designed 10 to 15 years ago, when HR technology's focus was on process standardization and automation.

- AI is no longer unknown or just "cool" in HR technology. HR technology products use AI to deliver automation, decision augmentation and personalization. The recent GenAI trend enhances attention from both buyers and vendors on AI use cases and platform capabilities.

- When cloud-native applications first emerged in the HR technology market, talent acquisition solutions were the first on the scene. Similarly, AI-native solutions already exist in talent acquisition.

Market Implications:

AI-native applications are architected from the data up. They are built to ingest data from multiple sources, including user behavior data "breadcrumbs" within the application. They then rely on a library of managed AI algorithms that can be easily combined to deliver predictions, inferences or suggestions to achieve optimized outcomes. These data-driven insights, in turn, inform the set of key features with which users interact. User experiences are adaptable by default and can change based on the user's detected preferences at a particular point in time.

AI-native applications have a composable technical architecture by default. This design includes a high reliance on external data sources, easy discoverability of algorithms and an orchestration layer to deliver various user experiences across any experience medium (e.g., chat, web, text, etc.). Such flexibility means this is not easily accessible to most current cloud-native applications.

In today's market, AI-native application architectures can be found in some ontology-based skills graph solutions, AI-enabled candidate relationship management and sourcing tools, and internal talent marketplace AI applications. Many technology providers deliver the same features, but on a cloud-native application architecture. These architectural limitations lead to reduced AI performance and limited AI-driven user experience improvements. Despite recent announcements to expand their AI use cases and build their AI platforms, most HCM suite providers are still constrained in their ability to compete with AI-native applications or introduce their own. At best, these investments by HCM suite vendors will bring their products closer to the claim of being AI-centric, but still not AI-native.

This environment creates an opportunity for a new AI-native HR technology vendor to go beyond talent management processes to address core HR functionality in a new and disruptive way. Large non-HCM application vendors with AI capabilities will likely be attracted by this opportunity, given the increasing importance of the workforce to CEOs and the strong growth trajectory of the HCM technology market. [10] On the buyer side, the emergence of such options will appeal to organizations with more than six years with a cloud HCM suite, which are expected to be about 20% by YE24, which would be keen to explore cloud HCM suite replacements.

Recommendations:

- Test and invest in existing AI-native applications in the talent acquisition, skills and talent marketplace domains, as well as in newly released applications in HR services (especially conversational UI). Get an early view of their impact differential when compared to cloud-native applications.

- Address the need for increased data and AI literacy in the HR function. Participate in new HR role design to manage and audit data flows, as well as to verify and control the effects of bias.

- Establish a close partnership with the legal function to monitor fast-moving regulation around the use of AI across HR functional areas (e.g., EU AI Act: First Regulation on Artificial Intelligence [EU], AI Regulation: A Pro-Innovation Approach [the U.K.], The State of the State AI Laws: 2023 [U.S.]). Next to compliance, assess explainability within application features as another critical requirement for purchasing or using any application with AI-native architectures.

- Monitor business viability and product evolution of incumbent HCM suite and specialist providers. Determine potential points-in-time where their trajectory is expected to mismatch your requirements. Compare with your existing contractual obligations to prepare for vendor replacements, as many of these take time (up to 18 months to identify, select and complete initial implementation).

Related Research:

Use-Case Prism: Artificial Intelligence for HR

Innovation Insight for AI-Enabled Skills Management

Innovation Insight: Generative AI in HR

A Look Back

In response to your requests, we are taking a look back at some key predictions from previous years. We have intentionally selected predictions from opposite ends of the scale — one where we were wholly or largely on target, as well as one we missed.

On Target: 2021 Prediction — By 2024, more than 30% of organizations will have embedded continuous listening into their posthire talent management processes to improve employee experience and retention.

Continuous listening refers to a portfolio of talent management strategies and technologies that include voice of the employee (VoE) solutions, continuous employee performance management, career development, and social recognition tools. These solutions collect and analyze employee opinions, perceptions and feelings to provide actionable guidance, and enable ongoing performance feedback, coaching, learning and development processes.

Adoption of these solutions is driven by the need to respond to ongoing employee feedback and create more personalized employee experiences. They aggregate a variety of data from different sources that vary in market adoption, from the established to the experimental. VoE and continuous employee performance management tools continue to mature, with several VoE providers targeting smaller organizations, a sure sign of market maturity and broader adoption. These providers are moving to provide adjacent capabilities of continuous performance management. However, no solution fully supports all types of continuous listening and analytical methods, thus organizations continue to integrate multiple providers. Despite this, steady adoption continues, as the Hype Cycle for HR Technology, 2023 puts adoption of VoE and continuous employee performance management solutions at 20% to 50% of the target audience, and adoption of coaching/mentoring applications at 5% to 20% of the target audience.

Missed: 2021 Prediction — By 2024, 20% of large global organizations will have successfully invested in a skills aggregation solution to connect multiple skills management repositories.

Although skills remain a top priority for HR leaders, this prediction was made on the assumption that organizations would try to wrangle the complexity of skills data by seeking solutions that would aggregate and connect multiple skills data sources. Instead, skills remain caught between upstream and downstream talent management processes, like workforce planning and talent acquisition, meaning adopting these solutions still has yet to meet 20% by large organizations. Furthermore, the ongoing complexity of skills changed the skills approach from aggregation to translation across various systems.

Skills can have a broad impact on both upstream and downstream processes, but these processes are often owned by separate entities within the organization, leaving skills initiatives caught between these two. Investments by large global organizations in talent management technologies remain piecemeal to reflect the needs of the specific talent management leaders (talent acquisition, learning and development, workforce planning, or local HR). Additionally, the market for AI-enabled skills management tools remains fragmented (see Innovation Insight for AI-Enabled Skills Management). The market includes labor market intelligence solutions, internal talent marketplaces, HCM suite providers, learning experience platforms, stand-alone AI-enabled skills management providers, and talent analytics and workforce planning providers. The lack of ownership of skills in organizations, coupled with a fragmented market of solutions, means AI-enabled skills management tools have yet to meet the predicted 20% adoption mark, per the Hype Cycle for HR Technologies, 2023.

Furthermore, the ongoing complexity of skills led to a change in approach from aggregation to translation and connection. Organizations see continued complexity in accessing internal HR data, work data and external skills. Rather than aggregating data, and having one primary skills taxonomy to rule all others, organizations have been feeding the individual engines that power various talent management processes, and making sure the data is normalized and can be translated or shared across systems. Organizations still face the challenge of processing proficiency of skills in highly varied datasets, or based on industry or context. The standards and language used to describe the same skill varies greatly, which is why the approach has changed to translation instead of aggregation. As noted in the Use-Case Prism: Artificial Intelligence for HR, technical feasibility for AI-enabled skills management tools remains low, largely due to the complexity of skills data.

Evidence

[1] 2023 Gartner Budget and Efficiency Benchmark. This research contains results from more than 500 HR organizations from across the Americas (72%), EMEA region (20%) and APAC region (8%) that participated in our 2022 and 2023 HR Budget and Efficiency Benchmarking Survey, conducted from January 2022 through June 2023. Participating organizations represented all major industries, revenue sizes and organization sizes.

[2] Benchmark With Gartner: Affirmative Action, Apprenticeships and Candidate Expectations (23 August 2023). The Benchmark with Gartner: Affirmative Action, Apprenticeships and Candidate Experience live polling webinar was conducted to enable HR leaders to discuss stands their peers are taking on timely critical concerns that impact key talent decisions HR leaders need to make. The main topics covered in this webinar include the labor market climate outlook update for talent-based leading indicators of economic conditions, implications of the U.S. ruling on affirmative action for DEI, potential of apprenticeships to help address persistent skills shortages, and current state of candidate expectations from Gartner's quarterly Voice of the Candidate Survey. The webinar was conducted on 23 August 2023 with responses from over 30 HR leaders participating across a spectrum of industries with a focus on North America. The webinar questions were designed and developed by Gartner's Rapid Response and HR practice research teams.

[3] Benchmark With Gartner: Advancing Analytics, Flexibility Beyond Location and Critical Segment Strategies (18 October 2023).

[4] NASA Announces Summer 2023 Hottest on Record, NASA; 2023 on Track to Become Hottest Year on Record, Says EU Climate Service, Reuters.

[5] Benchmark With Gartner: Special Edition — Navigating the Workforce Impact of Generative AI (21 June 2023). This live-polling webinar was conducted to enable HR leaders to discuss stands their peers are taking on timely critical concerns that impact key talent decisions HR leaders need to make. The main topics covered in this webinar include the labor market climate outlook update for talent-based leading indicators of economic conditions, generative AI's impact on skills and workforce, governing and managing risks in generative AI, and key implementation considerations. The webinar was conducted on 21 June 2023 with responses from over 100 HR leaders participating across a spectrum of industries with a focus on North America. The webinar questions were designed and developed by Gartner's Rapid Response and HR practice research teams.

[6] IPCC Sixth Assessment Report: Impacts, Adaptation and Vulnerability, Intergovernmental Panel on Climate Change.

[7] The Impact of Climate Change on Workers and Employers: The California Experience, LexisNexis.

[8] N. Spencer and M.-A. Urquhart, " Extreme Climate and Absence From Work: Evidence From Jamaica," International Journal of Disaster Risk Science, 2021.

[9] 2022 Strategic Roadmap for HCM Technology Investments

[10] 2024 HR Technology Imperatives; 2023 CEO Survey — The Pause and Pivot Year

Document Revision History

Predicts 2023: HCM Technology Transformation - 13 December 2022

Recommended by the Authors

Some documents may not be available as part of your current Gartner subscription.

Use-Case Prism: Artificial Intelligence for HR

Innovation Insight: Generative AI in HR

Innovation Insight: AI in Recruiting Technology

Top Strategic Technology Trends for 2024

2024 HR Technology Imperatives