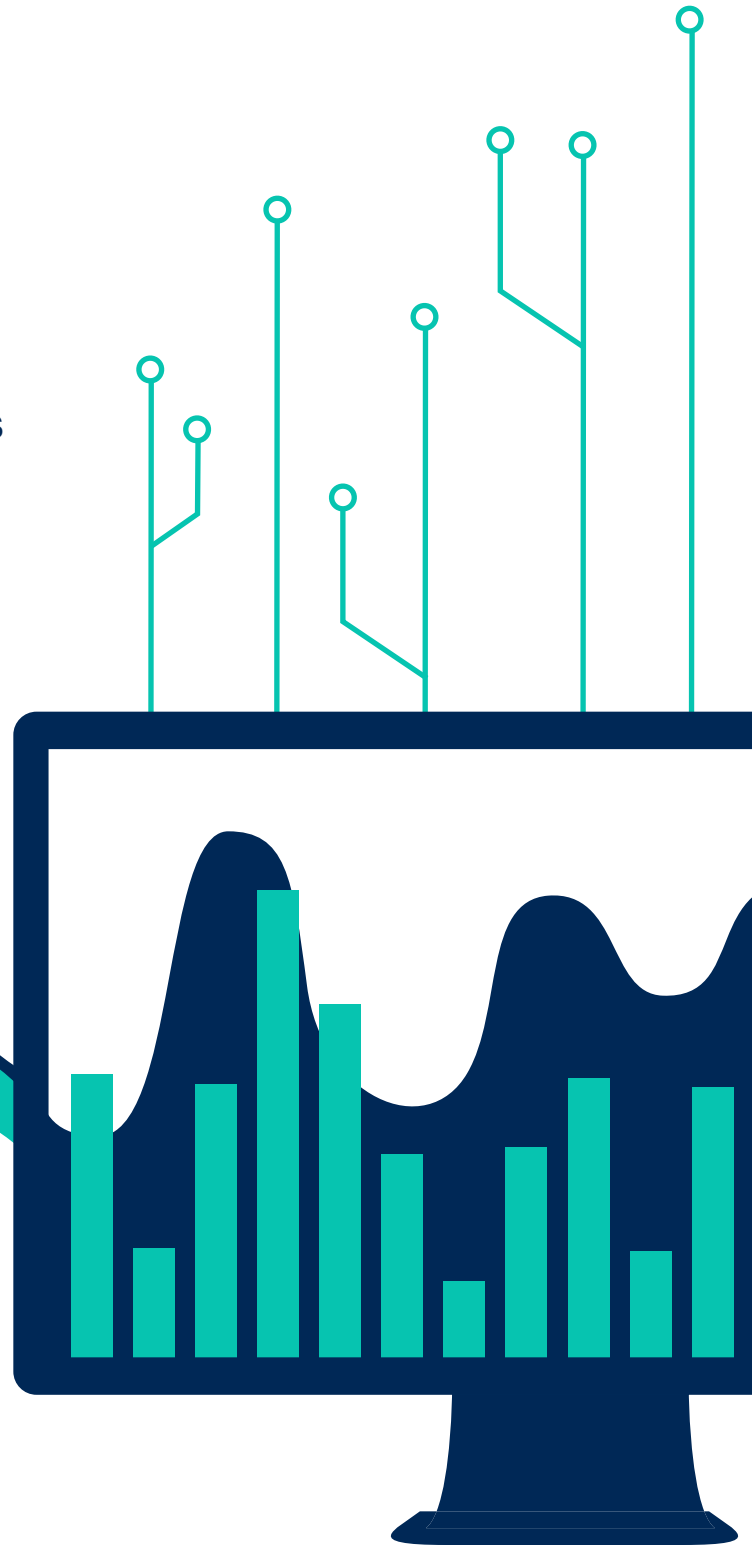


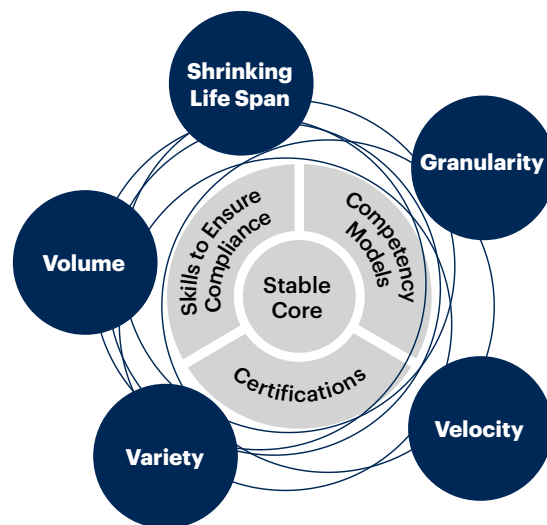
# 5 Ways AI Shifts How Organizations Think About Skills Data

by Helen Poitevin and Jonah Shepp

To harness the power of AI in their skills strategies, CHROs need to reimagine their approach to skills data. This includes what data they use and how much of it, how they use it to create development opportunities for employees, and what technical and ethical challenges of automation exist.



**Figure 1: Embracing the Chaos of Skills Data While Maintaining a Stable Core**



Source: Gartner

Emerging artificial intelligence (AI) capabilities not only enable organizations to leverage skills data more effectively, but also create new complexities in collecting and using that data. Organizations today use a variety of HR applications — such as learning experience platforms, candidate relationship management systems and human capital management (HCM) suites — that all offer AI-enabled skills data. This leaves HR leaders with large amounts of data existing within different systems, which can become confusing or overwhelming. With no central, standardized repository of skills data, how do you know which data source to turn to first?

CHROs must navigate this vast collection of data without getting overwhelmed. To succeed at this task, they must recognize how AI forces them to think differently about skills data and adjust their strategy for using skills data to adapt to these changes. In particular, AI changes:

- How much data is collected
- What the data is used for
- How much is automated
- How skills are detected
- How market data is used

Fortunately, for each of these changes, CHROs can adapt and improve the effectiveness of their skills sensing capabilities using the power of AI.

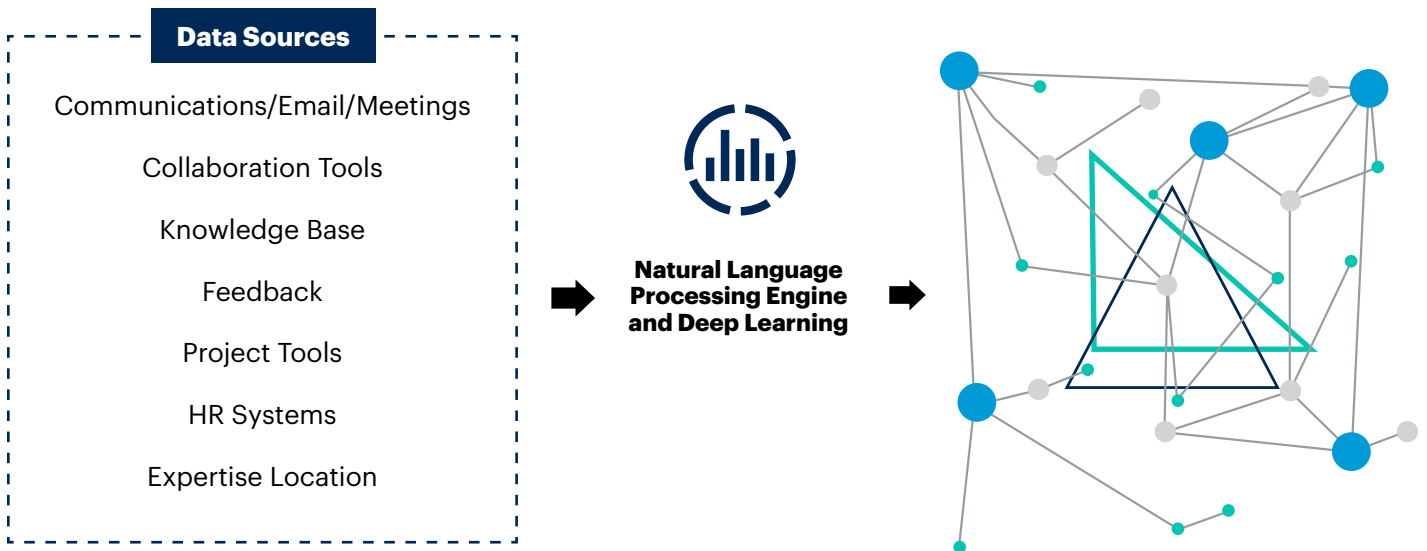
## 1 How Much Data Is Collected

Before AI, organizations typically recorded skills data through discrete and manageable lists of skills and competencies, which they had to manually update on an ongoing basis. Because of the extensive effort required to maintain this data, organizations had to scale down their ambitions and focus on tracking a small number of essential skills.

While data was too hard to collect in quantity before AI, with AI it is the opposite. HR leaders have more data than they know what to do with, including detailed skills information and more familiar competencies. AI-enabled systems can collect and synthesize employees' individual knowledge areas, project experiences, learning and development activities, career paths and more.

For CHROs struggling with a proliferation of skills data, the lesson is to embrace the chaos while maintaining a stable core of essential skills information (see Figure 1). This core includes competency models, industry certifications and skills tracking to ensure compliance with standards or role requirements (for example, confirming that an employee knows how to operate a particular machine correctly and safely). These data points remain fundamental.

**Figure 2: Feeding the AI Engine With Skills Data**



Source: Gartner

Beyond that core, however, CHROs should get comfortable with the chaotic ways AI uses context, knowledge, experience, recency, frequency and other granular data to make inferences about employees' skills and potential pathways. You would never put an employee into a role they are clearly unqualified for on an AI system's recommendation, but these systems might reveal things about your employees' capabilities that you would not have recognized otherwise. Even chaotic and imperfect data gets you closer to knowing your talent on a deeper level, which helps employees feel seen and supports their development within the organization.

## 2 What Data Is Used For

AI has profound implications for how organizations use their skills data. In the past, an organization would (again, mostly manually) maintain a searchable database of employees' skills, roles, job history and other relevant data points. To fill a position internally, HR would search through that data and help the hiring manager find an employee with the role-specific prerequisites who would be a good long-term fit. Hopefully, in this case, the database is up to date and all the needed information is stored in the same place.

An AI-powered skills data system, on the other hand, is more like an engine room. Rather than combing through a database to find the perfect long-term match

for a position, organizations can use an AI-enabled internal talent marketplace to instantly produce multiple matches for a given role or project. This AI engine is particularly effective for supporting a flexible, skills-based approach to talent management, in which the question is not so much, "Who can do this job for the next few years?" as "Who can do this job right now?"

To get better results from the engine, first feed it more — and better — data from a variety of sources so it can produce better matches (see Figure 2). The more information an AI system has to work with, the more accurately it can identify the touchpoints and gaps between skills availability and skills needs.

Starting with HR system data makes sense, but these systems generally lack information about what employees do day to day or what specific knowledge they apply in their work. Internal talent marketplaces can add data about achievements in gigs or project roles. Domain knowledge and topic expertise can also be found through interaction data in collaboration tools and knowledge articles. Feeding the engine means helping employees find meaningful work more quickly, which keeps them engaged and encourages them to grow within the organization.



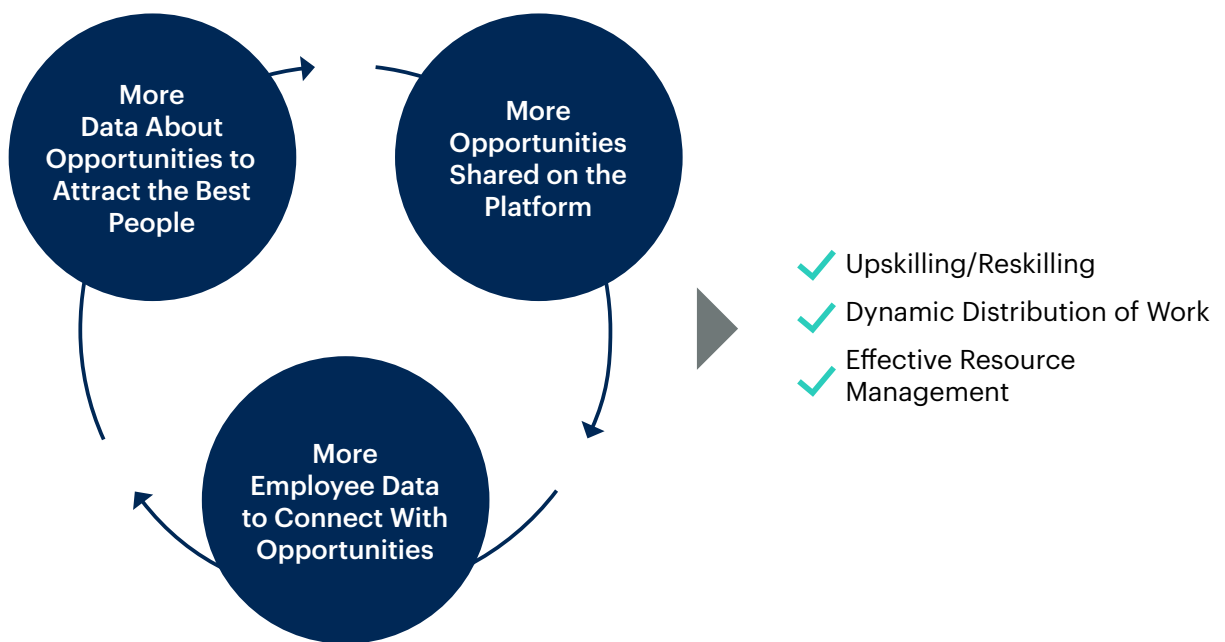
### 3 How Much Is Automated

Before AI, collecting skills data (and deciding what data to collect) was a manual, human-led process. CHROs would work with business leaders to identify what individual skills to track, employees would be asked to update their skills profiles regularly and managers would be expected to validate them.

Naturally, AI automates many elements of this process. For CHROs, this means approaching the task from a different angle and asking business leaders: What business systems are the best data sources for automatically understanding employees' work experience to capture what skills they possess and which context they used them in? When this information is automatically gathered without human input, machines can draw conclusions that leaders, managers and employees don't understand or agree with.

To maximize automation's benefits and minimize the ethical risks, CHROs should establish governance systems to oversee what the engine is delivering to improve quality and ensure there is room for human feedback to correct and adjust the engine over time.

**Figure 3: The Skills Data Feedback Loop**



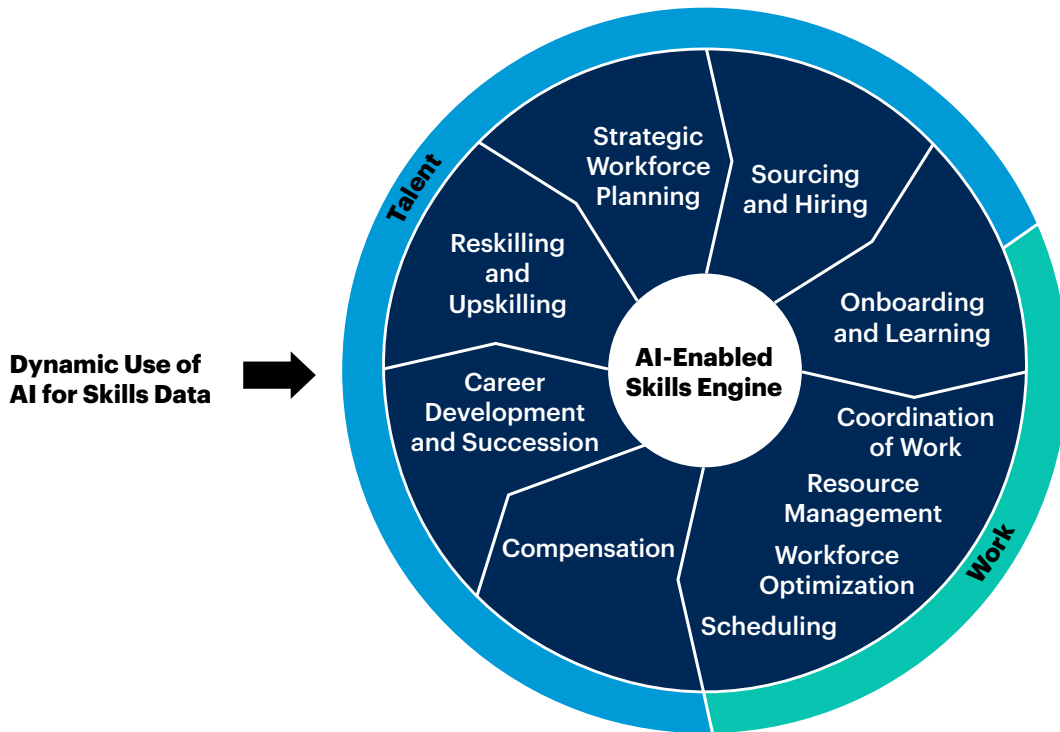
Source: Gartner

### 4 How Skills Are Detected

Historically, assessments have been HR's main source of skills data, periodically capturing employees' skills at discrete points in time. AI enables a more continuous and dynamic process, where assessments still play a role, but they are just one segment of a larger field of data, which is collected on an ongoing basis.

CHROs must ensure data flows are designed to generate positive feedback loops (see Figure 3). For instance, an internal talent marketplace can provide ongoing data about employees' experiential development. But when the system continually matches the right people to projects, this also improves the engine's understanding of employees' skills and, in turn, enables it to make better matches over time. Think of it as a cycle: When employees see that the marketplace offers them good opportunities, they are motivated to take advantage of these opportunities. This in turn generates better data about people's experiences, which feeds better matches and creates more interest in opportunities.

**Figure 4: A Regenerative System for Talent**



Source: Gartner

## 5 How Market Data Is Used

The fifth and final way AI changes the way organizations think about skills is by providing greater access to troves of external data they couldn't easily incorporate into their skills strategies before. An AI-enabled engine can automatically incorporate external data, dynamically map it onto internal data and use internal and external data to continuously improve its accuracy. This can allow CHROs to more easily detect where emerging skills are coming from and where there is the highest competition for them, providing better insights for strategic workforce planning.

Yet, this technology is still new and developing. No single, perfect source for external skills data exists, nor does any off-the-shelf solution that will provide exactly what your organization needs. In working with providers, you will find that you and your teams need to do more manual work than you might have expected. However, the benefits of capturing external skills data and mapping that to your internal landscape can be well worth the effort.

CHROs who embark on this project should be prepared to iterate and learn as they go. Over time, however,

linking your skills data sensing to the external market will help your organization adapt and respond with agility to the dynamic changes taking place outside.

## A Regenerative System for Talent

By adapting to these changes and using AI dynamically to gather and operationalize skills data, CHROs can design a regenerative system that supports talent strategy, employee development and even the way work gets done at the organization (see Figure 4). AI's ability to learn and improve its outputs over time is what makes it an exciting tool to apply to skills management and planning, a field in which supply and demand are constantly changing. For CHROs, the challenge — and opportunity — lies in taking full advantage of this power and building a skills engine that keeps getting better at its job.

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