



Skills Guide: The Four Stages of Skills Maturity

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of Skills Maturity



TALENT
TECH LABS

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INTRODUCTION

What Is Skills Tech and What Does it Do?

Skills technology (Skills Tech) is foundational capability in the talent (or HR) technology ecosystem.

As the name implies, Skills Tech uses a skills framework and intelligent logic to identify, infer, organize, and translate skills and competencies across an organization. Unlike traditional approaches offered by legacy tools, which seek to match keywords in job postings with keywords in resumes or job applications, Skills Tech can infer skills from unstructured, contextual information to match talent to roles or projects. This means candidates no longer need to tailor their resumes to match job descriptions. It also means Skills Tech can identify skills adjacencies (e.g., if the candidate can do this, there is a high likelihood they can also do that) or synonyms, and typically use Artificial Intelligence (AI) or Machine Learning (ML) to continually improve this capability.

Beyond the technological capabilities, Skills Tech represents a shift in mindset, and a different approach to the relationship between skills/competencies and roles/career paths. An understanding of Skills Tech and the innovative approach these solutions take is paramount to furthering the movement towards “total talent intelligence,” and future organizational design.

SECTION 1

Why Skills Data Needs To Be Considered Across The Talent Lifecycle

Connecting data through the talent lifecycle delivers a best-in-class talent experience for candidates, employees, and alumni. The resulting talent insights can have profound implications for an adaptive workforce.

With a comprehensive, unified view of skills and competencies data, organizations can make more informed decisions across both talent acquisition and talent management. In talent acquisition, organizations can hire for potential, filling their recruiting pipelines with talent most likely to possess the skills they'll need in the future. This proactive hiring approach increases organizational agility by reducing time to fill critical roles. In talent management, a universal source of skills data can power upskilling, reskilling, coaching, and learning programs, in addition to guiding strategic workforce planning and internal mobility efforts.

If skills are the new workplace currency, it is critical for organizations to deeply understand what skills they have, what future skills they will need, and the appropriate actions to take to fill those gaps. This aspect of a comprehensive talent strategy requires skills technology (Skills Tech) and the maturation of talent data practices, including the normalization of skills and competencies data from myriad disparate sources, both internal and external. Insight into skills data from across the globe and throughout the talent lifecycle, from applicants to alumni, is then revealed. Is your organization ready?

SECTION 2

Different Approaches to Skills Data Technology

There is a range of approaches to Skills Tech, and different vendors have taken different routes to market for their skills technologies. Some providers are even using Skills Tech as their foray into an additional area of the talent technology ecosystem.

For talent acquisition, many Candidate Relationship Management (CRM) solutions are incorporating Skills Tech into their platform. As a CRM user sources and engages with candidates, they gain visibility around a candidate's skills, beyond simply matching keywords from resumes. This yields a higher quality pipeline of candidates. Aside from the job description, however, this is somewhat disconnected from the skills information inside the organization.

Multiple solution areas within talent management are popular and appropriate for Skills Tech. Internal Talent Marketplaces (ITMs) are quickly becoming the orchestrators of internal mobility opportunities and need skills data to intelligently match talent to new roles, projects, courses, and coaches. Learning Experience Platforms (LXPs) play a similar matchmaking role, recommending and tracking personalized learning pathways and skills are central to their utility and value. Talent Intelligence Platforms, centralized solutions which aggregate, analyze, and visualize data about talent, wherever it is sourced, need detailed skills data to be effective. (Some of these are standalone solutions, and others are embedded in ITMs.) And, of course, core HR platforms (HRIS or HCM) have long been the trusted sources of all talent-related data, including skills. Traditional HRIS or HCM vendors are adding Skills Tech to their core offerings, perhaps hoping that platform modernization allows them to remain the trusted source of skills data.

The fundamental shortcoming of each of these approaches to Skills Tech is that, despite the available integrations, a unified and perpetual view of an organization's global skills largely remains absent in practice.

SECTION 3

Organizational Readiness

Realizing the promise of Skills Tech requires organizational readiness, plain and simple.

Many organizations adopt Skills Tech for its potential, believing that these technology investments will future-proof their talent strategy as the economy and labor market ebb and flow. Eventually, some organizations abandon it, often putting too much confidence in – and blame on – the technology itself. Properly implementing Skills Tech is no different than that of other types of technology implementations: there are many factors that influence success.

Some of the key areas where organizations typically fall short in this regard include:



Lack of strategy: The organization has not aligned its business strategy and its talent strategy. It needs to define specific goals to conduct workforce planning and, in turn, determine what skills and competencies will be needed to execute that strategy. This is the map that ensures the organization is moving towards its intended target (ROI).



Overlooking change management: It is human nature to resist change, and ignoring or even downplaying this fact gets many organizations into trouble. People need to be well prepared for changes to their familiar technologies, workflows, and terminology. This is perhaps even more true when the changes relate to people data. Clear, advanced communications, outlining what is changing and why is an important element of success.



Not understanding what it can and can't do: Expectations must be made abundantly clear to all. Technology should be solving a prioritized business challenge. It is unrealistic to expect Skills Tech to address every current or future skills use case or to do so overnight. Make clear to all sponsors and stakeholders what use cases are in scope and the timeframe in which they will see results.



Outdated technology infrastructure: Skills Tech requires real-time data flowing to and from myriad sources. It needs scalability, reliability, security, and speed. If an organization is still using legacy platforms and infrastructure to support its operations, problems with implementation, integrations, and performance are likely to occur. Infrastructure modernization should be strongly considered to mitigate these risks.

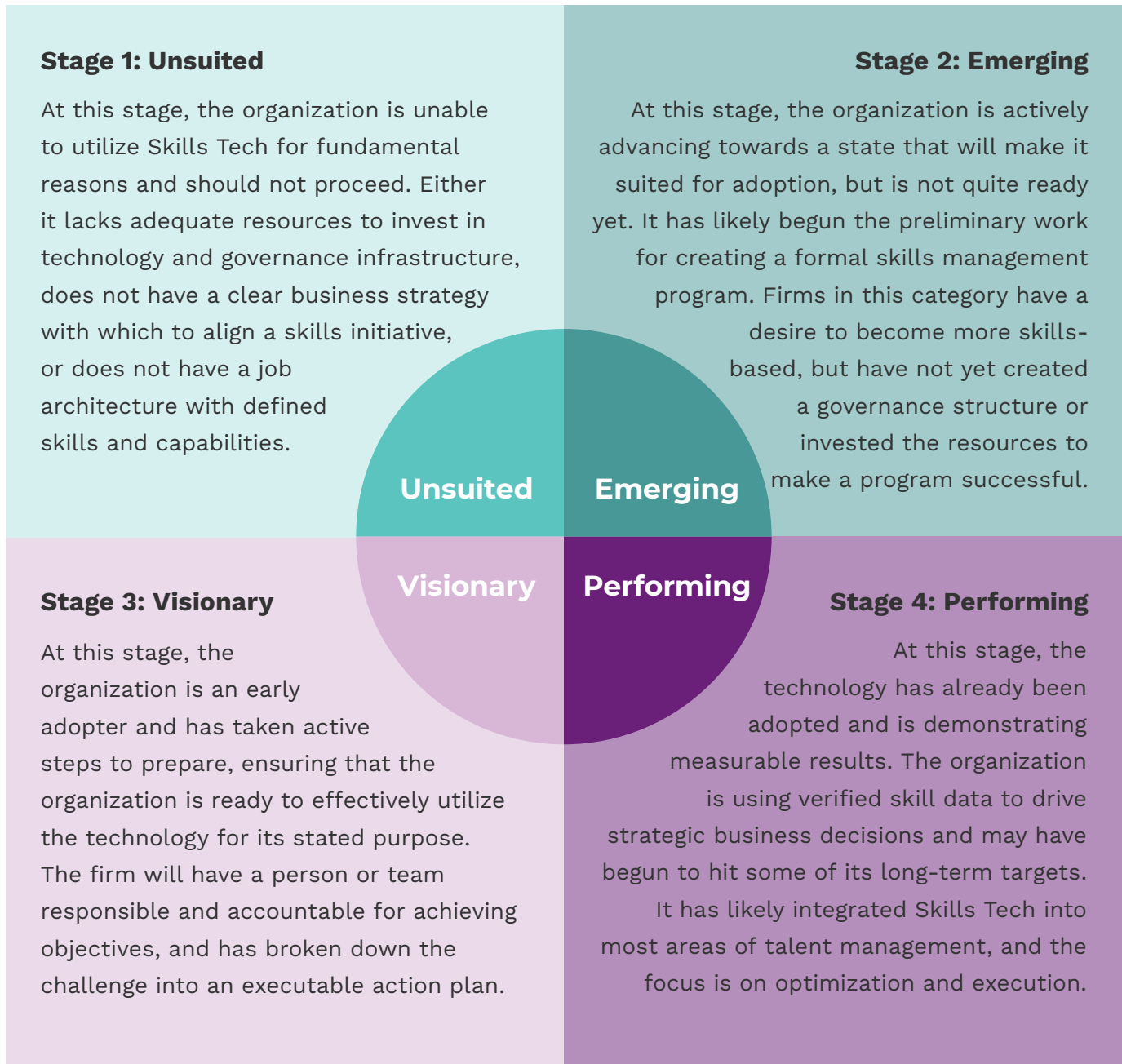


Immature data: The benefits of Skills Tech cannot be realized if an organization's skills data isn't available and of a certain level of quality. Skills data can exist in many forms and in different internal and external sources. Sometimes this data can be inferred, other times, it is explicit. Before even building the business case for Skills Tech investments, organizations need to first consider the breadth and quality of their existing skills data inventory. Identifying data gaps will allow companies to chart a course along the data maturity curve and set clear goals for Skills Tech ROI.

SECTION 4

Maturity Framework

SKILLS TECH MATURITY FRAMEWORK



In order to understand your organization's readiness to adopt Skills Tech, start by identifying which of the following descriptions best characterizes its "maturity stage" for each of the "dimensions" outlined below.

	Maturity Stage			
	Unsuited	Emerging	Visionary	Performing
Skills Strategy	Company does not have any formal skill-based strategies, goals, or objectives	Get accurate measure of workforce skill supply v. demand (understand current state). Define problem statement, success metrics, and scope	Create strategic vision and roadmap. Pilot programs to measure impact of Skills Tech for HR use cases: external hiring, mobility, upskilling, workforce planning, etc.	Optimize program performance, accountability, and initiatives. Update strategic goals and scale up existing programs to reach more of the workforce
Change Management	No process in place	Prepare the organization for change by assessing current culture and raising awareness. Create vision and plan for change	Develop detailed plan for change implementation process. Follow steps outlined to implement the required change	Update change processes and procedures as needed to continue meeting targets. Begin to roll back change communication cadence
Technology Infrastructure	Little to none, tech may be used for general recruiting and HR functions but not optimized for skills management	Assess current tech stack and systems that generate, store, and aggregate skill data. Evaluate and select new tech tools/systems to support skills strategy	New Skills Tech system/s implemented, existing systems modified to better support skills data management	High adoption of new systems by the workforce. Every piece of the HR tech stack is optimized for skills data
Skill Management & Governance	None, or only for certified skills and recognized credentials	Typically talent acquisition, talent management, or L&D executive, usually not accountable for performance/objectives	Dedicated skills management lead (internal committee), or at minimum line of sight to executive team or board	Permanent dedicated skills management office (e.g. COE, strategic practice, etc.), with line of sight to executive team or board
Organizational Alignment	No integrated talent management strategy. No cross-functional alignment within HR	Talent acquisition and management, sometimes hiring managers/business units. Basic goals and benchmarks understood	Company-wide, executive-level down	Skills are core part of organizational and business operations and competitive differentiator

Maturity Stage

- **Unsuited:** The organization is unable to utilize the technology for fundamental reasons and should not proceed. Either it lacks adequate resources to invest in technology and governance infrastructure, does not have a clear business strategy with which to align a skills initiative, or does not have a job architecture with defined skills and capabilities.
- **Emerging:** At this stage, the organization is actively advancing towards a state that will make it suited for adoption but is not quite ready yet. It has likely begun the preliminary work for creating a formal skills management program. Firms in this category have a desire (from the executive team down) to become more skills-based but have not yet created a governance structure or invested the resources to make a program successful.
- **Visionary:** At this stage, the organization is an early adopter and has taken active steps to prepare, ensuring that the organization is ready to effectively utilize the technology for its stated purpose. The firm will have a person or team responsible and accountable for achieving objectives and has broken down the challenge into an executable action plan.
- **Performing:** At this stage, the technology has already been adopted and is demonstrating measurable results. The organization is using verified skill data to drive strategic business decisions and may have begun to hit some of its long-term targets. It has likely integrated Skills Tech into most areas of talent management, and the focus is on optimization and execution.

Dimension

Skills Strategy: In order to implement Skills Tech, organizations need a clear strategy for talent management that prioritizes skills as a way to measure the abilities of the workforce. To quote Josh Bersin, arguably the most influential proponent for Skills Tech today: “Building a skills and capability strategy is not a problem of ‘buying a product’ and turning it on. This is a serious project that will make your company operate differently.”

Change Management: Implementing Skills Tech requires a considerable shift in mindset and behavior, and you need to prepare in order to be successful. As one Digital HR leader shared with us, the biggest challenge is changing the mindset of HR toward the new paradigm for how we understand people. Organizations must take a holistic approach to skills transformations and apply change management principles to successfully reap the benefits of Skills Tech.

Technology Infrastructure: As mentioned earlier, technology implementations, in general, often fail when layered over outdated technology infrastructure. As a result, some organizations might find that adopting Skills Tech or utilizing all of its features will require an infrastructure upgrade. Before adopting any new technology, it's important to work with your vendor to ensure your backend system has the capacity to deliver the expected results.

Skill Management and Governance: Even for organizations that clearly understand the business case for Skills Tech, it can be difficult to establish skills data management and system governance. A skills data management project requires a high level of governance to ensure the privacy, standardization and quality of employee data. It is not always clear where skills data governance should live within the organization.

Organizational Alignment: Change is hard to implement without alignment, and in this case, that alignment comes in the form of the organization's perspective on talent. Skills Tech enables a fundamentally different approach to skills management, and organizations need to be aligned on those changes. A key precursor to the successful adoption of Skills Tech is a broad-ranging conversation with key stakeholders that includes a discussion of their needs and challenges, whether a particular solution is appropriate, and how the proposed changes will further support business objectives.

SECTION 5

Best Practices for Moving up the Maturity Curve

Once an organization has benchmarked its organizational readiness, the question becomes: how can you move up the maturity curve and leverage Skills Tech successfully?

Below we provide some high-level strategies that organizations can take as they embark on a skills journey.

Identify and Unbundle Jobs:

This step refers to breaking jobs down into their molecular components, with the primary goal of being able to separate parts out as tasks or projects. By doing this, jobs can be restructured in more agile ways, enabling broader organizational participation in certain parts of jobs while keeping core or key roles and responsibilities intact. This may include turning elements into projects, gigs, or tasks, and focusing people on the problem to be solved or the ideal outcome. This leads to people being defined as more than just a job title, and also means businesses can fluidly deploy the right talent to the work needed to meet business goals.

Using Data to Understand Skills at the Organization:

This step involves understanding the skills that exist in your organization, and creating processes (underpinned by technology) for normalizing that data across systems to give talent leaders a holistic view of organizational capabilities. The goal is to connect people systems across the organization, and then normalize and aggregate the data contained within those systems to provide a clear picture of the skills composition of the organization.

There are many questions to be answered. How do we know that one version of a skill – let's say "product management" – is the same each time, in each system? How does that vary versus public data sets, or does our industry/company use unique terminology? How do we define which skills/capabilities mean something from a perspective of seniority or progression? How do we define what falls into the bucket of "skills" (versus something else)? The skills taxonomy needs to be clear, dynamic, and interoperable with other systems and platforms.

Define Your Use Cases:

Defining the use case involves explicitly defining what you are trying to solve with Skills Tech, along with key metrics for tracking success. Common use cases include using AI-based matching to improve internal apply and hire rates, increasing inter-team collaboration, improving retention or employee NPS, or powering a learning strategy or redesign. The intended use case has implications for systems integration decisions, stakeholder building and alignment, and overall ROI analysis.

While it can be tempting to go “all-in” at once, some organizations have found success by initially deploying in a more limited capacity, typically with a defined user group or employee population, and then expanding horizontally as success is established. The advantage of this approach is that it is easier to deploy, may be easier to build a business case around, and can be useful for a/b testing and ROI analysis (i.e. seeing how different business or operating units perform with and without a skills-based technology infrastructure).

Change Management For A New Paradigm:

While good data, smart data management, and explainable, user-friendly AI are incredibly important to bring a skills-first approach to life, organizations going down this route will also need to grapple with a new way of thinking. Changing how the work is viewed, and how the workforce is viewed, is a huge change management project. For HR, there is a completely new approach (and tools) to get to grips with, but even beyond that, people need to think differently. Long-standing company culture norms may need to be addressed, particularly if managers or people leaders are “defensive” about their employees.

In a skills-first organization, the role of the manager changes from managing employees to orchestrating work, and the influence and empowerment of others take on more importance than organizational hierarchy. As jobs become less fixed, managers need to be able to get comfortable with sharing talent across teams, rather than hoarding it.

The Talent Data Infrastructure of the Future

Skills technology represents a fundamental shift in how organizations manage talent.

By focusing on skills and competencies, talent leaders have the ability to deconstruct roles into more granular elements of work, leading to greater agility and adaptability. When effectively implemented, Skills Tech enables organizations to meet future skills needs with existing talent, helping their people identify reskilling or upskilling opportunities and grow their careers. This approach to talent identification and growth has already proven to be a competitive advantage: lower talent acquisition costs, higher quality talent pipelines, improved internal mobility (as measured by ability to fill a higher proportion of roles with internal candidates), and higher retention rates, to name a few.

When thinking about your talent data infrastructure, organizations need to consider several aspects critical to the success of Skills Tech.

- ✓ **Data sources** – skills data exists in many places; how, and how frequently, will it be ingested?
- ✓ **Contextualized skills data** – we must move beyond keyword matching; can we obtain context to validate and even infer skills?
- ✓ **Data enrichment and records refresh** – is there value in, or a need to, enrich data from additional sources at the record or profile level, and how frequently do we need to refresh this data?
- ✓ **Integrations** – do our varied sources of skills data integrate seamlessly with those solutions which analyze, visualize, and report on that data?
- ✓ **Bias mitigation** – is all our skills and talent data appropriately managed, masked, and interpreted by both humans and algorithms to mitigate bias? Is this audit ready?
- ✓ **Universal skills platform** – can our new global skills language talk to and interpret all data types from all sources to normalize and simplify our talent practices throughout the talent lifecycle?

CONCLUSION

Putting It Together

Taking a skills-first approach to talent lifecycle management is an important step in the evolution of work design.

Skills Tech plays a major role in this approach, helping to bridge talent acquisition and talent management with a holistic and consistent lens. Talent acquisition is streamlined, with improvements to pipeline quality and efficiency. Talent management reaps the benefits of increased mobility, retention, and engagement.

Realizing the promise of Skills Tech requires organizational readiness in a variety of key domains. Organizations that have the cultural and technical maturity, along with the ambition to future-proof their total talent strategy, can achieve significant competitive advantage through this skills transformation journey.

About Talent Tech Labs

Talent Tech Labs is an independent, unbiased research and advisory firm focused on analyzing technological developments in the field of Talent Technology. The company was founded nearly a decade ago with a vision to clarify the complex talent technology landscape. Since then, Talent Tech Labs has evaluated thousands of technologies and offers actionable insights into applications at every stage of the employee lifecycle.

The company helps buyers and users of talent technology solutions gain a better understanding of the complex market, learn about future trends and influences shaping the market, and provides them the strategic direction to transform their business through the intelligent use of talent technology today and in the future.

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