

Using Artificial Intelligence for Internal Talent Marketplaces

By Dagmar Christianson, MBA



FOR MANY YEARS, ORGANIZATIONAL LEADERS HAVE TALKED A GOOD GAME about the need to invest in their existing workforce. Too often, though, their actions have been guided by a myth — that external hires perform better than workers promoted from within. *The next great superstar manager is just around the corner*, they tell themselves. While it seems as if hiring high-potential people is easier or more straightforward than investing in an internal talent pool, this operating model is expensive and unsustainable. Consider the evidence: internal candidates outperform external hires, require half the interview time, and save up to 20 per cent in salary increases.

In a recent global [IBM survey](#), CEOs ranked investment in people as the number one way to accelerate business performance. With this realization, many organizations are shifting job design to align with how workplaces are evolving and to ensure employees are engaged. It has been [shown](#) that engaged employees drive higher revenue growth, enhance performance and increase retention. Organizations with engaged internal employees are up [to 57 per cent more effective and 87 per cent less likely to leave the company](#).

Engagement, of course, is merely an outcome of employee experience, and this experience must be designed based on what individual workers prioritize. Providing personalized career development opportunities and meaningful work is a strong step towards creating jobs that millennials — projected to comprise [75 per cent of the workforce by](#)

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An ITM leverages artificial intelligence to build dynamic profiles of each employee, complete with skills, interests and availability

2025 — will commit to over the long haul. [Research shows](#) that on-the-job development opportunities such as lateral moves and stretch assignments can increase employee engagement by up to 30 per cent, boosting productivity and retention.

These organizational shifts, however, are harder than they sound. To match long-term goals of each employee with the strategic objectives of their organizations, leaders need to create a culture that prioritizes the experience of the worker and places value in understanding the strengths and interests of each worker. Before the arrival of Human Capital Management (HCM) technology, gathering and integrating data to personalize work for individual employees was extremely challenging. Now technology is available to support and facilitate talent management and internal mobility.

One such solution, the internal talent marketplace (ITM), is being adopted by global organizations as an employee experience differentiator. These ITMs leverage artificial intelligence to build dynamic and comprehensive profiles of each worker, integrating data on skills, interests and availability. If approached correctly, ITMs could be one of the most promising and comprehensive solutions for optimizing resource management, internal mobility and personalization of work.

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While conducting primary research on the resourcing process at professional service firms, I gained significant insight into the pain points that drive leaders to search for new ways to develop talent within their own organizations. Over six months, I interviewed 25 consultants at varying levels of seniority and leadership from Canada's Big Four professional services firms (Deloitte, Ernst & Young, KPMG and PwC). My goal was to gauge the current state of the resourcing process at each firm and to hear what consultants had to say about artificial intelligence workplace applications. I also interviewed enterprise technology startups in North America and Europe that offer internal mobility technology solutions.

A clear pattern emerged from these conversations. Many organizations have red tape in place that discourages or prohibits internal mobility and keeps employees siloed. Professional services firms often grapple with resourcing challenges since there is no centralized repository of data available to track skills, interests and availability in a holistic and easily searchable way. Some firms have their own internal tools in which availability and/or skills can be tracked, but these are manual with minimal integration; in many cases, professional judgement is all that is available to make a resourcing decision. In this scenario, employees may appear to be fully utilized, but they are also not necessarily being leveraged for their specific skill sets.

When asked about internal resourcing tools, four out of five interview respondents did not feel motivated, enabled or incentivized to update their profile information regularly. This lack of motivation poses a further challenge for resource managers to identify and match talent to engagements.

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Senior leaders are often perceived as prioritizing only availability when considering project staffing, and the resourcing process is viewed as opaque



Resource managers are often cut out of the resourcing process entirely. When asked what they do first when staffing an engagement, interviewees most commonly responded with “call or email a colleague that I know” or “talk to others in my service line” with 96 per cent and 88 per cent responding respectively (see accompanying chart).

The ideal outcome of the resourcing process is to match a worker to a project that is the “best fit” in terms of skills, emerging interests and availability. [Research shows](#) that providing meaningful work and development opportunities on an individual level drives engagement and productivity.

In practice, senior leaders are often perceived as prioritizing only availability when considering project staffing, and the resourcing process is viewed as opaque. This has created a level of skepticism and discontent among lower-level employees. Fewer than 50 per cent of the respondents believe that maintaining their profile would result in “best fit” project matches. Anonymized data collected from a large professional services firm revealed that this skepticism is not unwarranted. When asked which aspects of an employee profile are highest in need, partners ranked “availability” and “location” almost two times higher than “soft skills” and “personal development.”

This lack of prioritization towards personalized meaningful work, development and employee interest does not foster a positive employee experience, nor does it help to address attrition or engagement concerns. When it comes to tracking and acting on the personal development needs and interests of individual employees, most firms could be doing more. As one consultant admitted, “There is a dichotomy between how we advise our clients to approach talent management and how well we are role-modelling these recommendations internally.”

Embracing machine learning and AI technology is the best bet to catalyze a shift towards a personalized and transparent employee development and resourcing process. AI technology can enable the consolidation of mass amounts of data that is beyond the administrative ability or capacity of administrators responsible for staffing and employee

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experience. This will fundamentally transform HR roles to become more focused on social skills and relationship building.

In large global companies, algorithms can be used to identify new professional connections and diverse teams that otherwise would never cross paths. Beyond growing diverse networks, algorithms can also identify organizational and individual skill gaps that employees can bridge via internal mobility opportunities such as stretch assignments or projects in different functional areas.

There is a strong business case in support of significant AI investment. A recent report by Deloitte estimates that adequate investment in AI technologies could free up 30 per cent of the public sector's time within five to seven years, saving hundreds of millions of hours and billions of taxpayer dollars annually. Almost half of the Human Resources Professionals Association (HRPA) members reported that their organizations will move toward using AI to address HR challenges in the next five years. Currently, 43 per cent of AI HR solutions are for recruitment only, demonstrating a level of saturation in the recruitment market. Opportunities in other areas of HR are ready to be tapped.

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Internal talent marketplaces are technology platforms that link and match resources to opportunities. They can organize and connect employees with jobs and projects across an organization, facilitate upskilling, and diversify competencies. ITMs improve the employee experience by evolving from siloed roles to a more flexible and interest-driven organizational design.

An AI-enabled ITM is mostly free of manual data entry and enables employees to take ownership over their skills, experiences, interests and development. The result is a comprehensive profile that dynamically represents each individual. Consider "Rachel", a high-potential employee. When she inputs her skill levels and experience into the platform, her profile becomes searchable by resourcers, managers and peers. Not only does this mean that she will be more easily identified and matched for her specific competencies, but she will also be able to take her career into her own hands. If Rachel is pursuing courses independently to learn to code in Python and wants an opportunity to apply this new knowledge, she can search for a stretch assignment or project that would allow her to hone this particular skill within her workplace.

On the other end, resource managers and project leaders can easily search for employees that match well, confident that high-quality information is being maintained for each worker. In Rachel's case, a resource manager who has traditionally hired an external contractor to assist with projects involving coding in Python may otherwise not know that she possessed this capability or that she was interested in coding generally. The ITM provides insight into employees interests and skills at an individual level so that their jobs can be further personalized and employee development areas such as coaching and upskilling become more strategic. This results in higher job satisfaction and engagement for employees,

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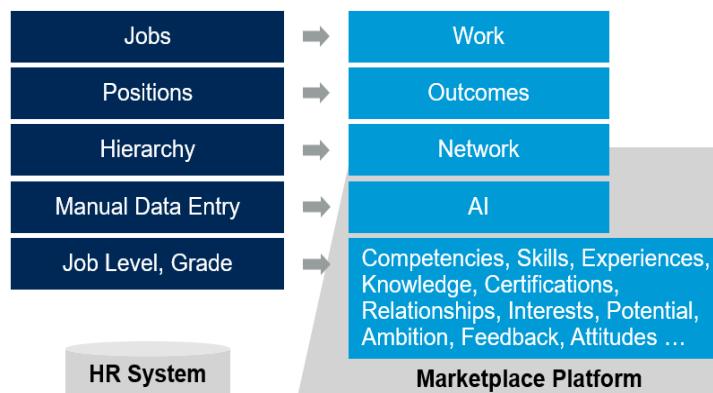
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The transition from HR systems to ITMs will blur hierarchies, titles and roles on outcome-driven work. It should also lead to major cost savings

increases revenue related to productivity, and reduces time-related costs for senior managers involved in the resourcing process. An ITM allows resource managers to spend more time managing relationships and communicating with employees to help them identify areas of interest, mapping career pathways, mitigating flight risks and educating on unconscious bias in staffing.

The research firm Gartner outlines the shift from HR systems to an ITM (see accompanying figure). This new approach to talent management blurs hierarchies, titles and roles on outcome-driven work. While professional services are well positioned to derive value from an ITM, any organization with project-based work and / or an insufficient understanding of internal competencies are also primed to benefit from an ITM.

HR System Versus Internal Talent Marketplace



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To get a general idea of the financial impact of an ITM, the enterprise platform ProFinda estimates that implementing a talent marketplace for a firm of 10,000 employees improves utilization by up to 5 per cent and reduces resourcing search time from two hours to 15 minutes per search (utilization rate is a widely used HR metric expressing the time an employee is engaged in productive and / or revenue-generating work). The ProFinda model assumes that each 1 per cent utilization improvement corresponds to a revenue increase of \$8.7 million on average, meaning that the financial impact is significant even without reaching the average 5 per cent improved utilization. Considering, the \$8.7 million does not account for the money that can be saved as a result of increased engagement on projects, improved quality of work and reduced employee turnover, the ROI becomes even more attractive. As one Big Four firm discovered, further cost savings can be found in an 18 per cent reduction of recruitment fees associated with locating and engaging external contractors.

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The ITM Pilots and Rollouts

Many Human Capital Management AI enterprise offerings are still in the “demo candy” phase but there are a number of organizations piloting ITMs.

Cisco's platform increased engagement, employee satisfaction and retention. It also broke down silos; now 80 per cent of the firm's assignments are outside employees' own departments

EY France, KPMG UK, and KPMG Australia have all partnered with enterprise vendors to roll out ITM platforms.

Technology conglomerate, Cisco, developed a machine-learning platform in collaboration with Ascendify called "My Development Space." It allows workers to populate their own profile with skills and interests, view a range of internal roles and determine the skill development required to move laterally or vertically within the company. Cisco reported that this initiative increased engagement, employee satisfaction, productivity and retention. It has also broken down silos: [79 per cent of Cisco's assignments were cross-functional](#) rather than being within an employees' own department, which translates into more diverse employee networks and interest-driven assignments.

In 2019, Consumer Packaged Goods company Unilever rolled-out an ITM across the organization to more than 30,000 employees in over 90 countries after a successful pilot of the program. The platform, known as InnerMobility, was designed and built by tech startup Gloat. Unilever reports equally as positive outcomes as Cisco regarding engagement and satisfaction, and claims that [workforce capacity increased by over 30,000 hours monthly](#) since the roll-out. Unilever also believes that the transparency of skills profiles now allows for quicker and more agile access to the right talent at the right time.

Other companies are focusing more generally on internal mobility, applying machine learning to establish patterns and processes surrounding career trajectory and lateral movement. General Electric has started to recommend top job matches to employees based on historical data of job progression. Salesforce is analyzing the text of annual performance appraisals to identify each employee's skills and interests and suggesting jobs that are relevant to these development goals. Some 50,000 employees are enrolled in IBM's "Blue Matching" program that uses predictive analytics to push notifications for potential job matches to employees based on experience, current role, location and interests. About 1,500 IBM employees have shifted to different jobs within the company as a result of this program. The company estimates that it [saved more than \\$100 million in 2018](#) alone based on the expenses IBM avoided in recruiting and training new employees, and employee turnover. Accenture also has a North American team dedicated to internal mobility and managed to increase the internal hiring rate from [6 per cent to 40 per cent over only four years](#). As these projects proliferate and benchmarking data is published, other companies will realize the competitive advantage of a mobility platform.

Four Speed Bumps to ITM Adoption

There are four main areas that organizations need to address for ITM adoption to be successful: costs, organizational structure, culture, and data.

:: Costs

In the past, it has been difficult to quantify talent management in terms of cost savings or increased revenue. This is where outdated HR metrics still

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And in a
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have a stronghold in many workplaces: qualitative measures such as employee engagement are harder to evaluate and track than quantitative metrics such as employee turnover or absenteeism. Using quantitative indicators and basing decisions on return on investment can be problematic when evaluating an investment in employee development — after all, the resulting benefit is intangible and not clearly defined or immediate. As well, organization-wide initiatives can be barricaded by red tape when it is unclear who “owns” the initiative. It is hard to decide if HR, internal strategy, IT or a combination of internal stakeholders owns an issue as high-level as internal mobility, further complicating the funding process.

:: Organizational Structure

In most firms, individual service lines and business units are directly accountable for cost reporting and billables. The structure limits resource sharing and can disincentivize cross-training, upskilling and varied work opportunities. With the resurgence of AI, there may be less dependence on expert-level technical skills and increasing reliance on softer skills such as relationship management that can apply broadly across technical subjects and service lines. Therefore, organizational design and corporate structure must be reassessed to align with an increasingly cross-functional workplace. The [Network of Teams](#) model, for example, shares specialists from certain functional areas to create cross-functional project teams.

:: Culture

If organizational culture is not collaborative, employees may fear accepting positions or projects outside their functional area. And in a competitive environment, managers will not be motivated to support internal mobility efforts if they are worried that key team members will be poached by another functional area. Employees also need to understand and be confident that they have ownership and control over their profile, and that their skills and interests will be considered by senior leadership when resourcing decisions are made. This would help overcome a key ITM adoption hurdle, namely employees failing to update their profile due to lack of motivation or time. It would certainly help matters if the ITM platform were easy to use and intuitive with continuous automated touchpoints and integration within the existing HR suite.

:: Data

In order for an ITM to function effectively, employee profiles must be comprehensive and dynamically track and quantify skills and experiences. Social skills and drive are high potential indicators that are valued by professional services firms. The data collection methods used by some of these firms, however, are not descriptive enough to ensure high-quality responses. For example, the question “Would you work with this person again?” could be interpreted as asking for an assessment of any random skill or the person’s work ethic or likeability. Ideally, data would be continually

Employees must feel ownership of their AI-generated talent profiles and be given incentives to frequently update their data. They have to understand and accept how an AI platform can improve their work experience

collected to bolster employee profiles; that way, the ITM platform could learn from the career performance of the employee base to identify skills that are the greatest success predictors for the organization. Knowing the required data needed and standardizing the collection method across functional areas would reduce costs and improve quality of AI-generated insights.

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Organizations need to further assess the perceptions of their workers regarding several key areas, including access to development, internal promotion opportunities and transparency of resourcing. They also have to gather key data (such as internal versus external hiring costs and attrition costs) to confirm whether an ITM is an appropriate solution.

If an organization decides to launch a pilot of an ITM platform, it must ensure employees feel ownership of their AI-generated talent profiles and incentivize them to frequently update their profile. Consider, too, how bias can be avoided by using the technology and evaluate the possibility of integrating an automated validation tool that can test the level of competency in certain skills.

Workers will need to understand and accept the role that an AI platform can play in improving their work experience. At the same time, the AI platform must not be approached as cookie-cutter fix for all HR functions; human judgement will always hold a place in people management. Employees are more than the sum of their metrics.

While there are many Human Capital Management investments that can improve employee experience and engagement, piloting an ITM is a relatively low-risk solution with the potential to catalyze the transition to a workplace that is cross-functional, driven by insight, and focused on equity.

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