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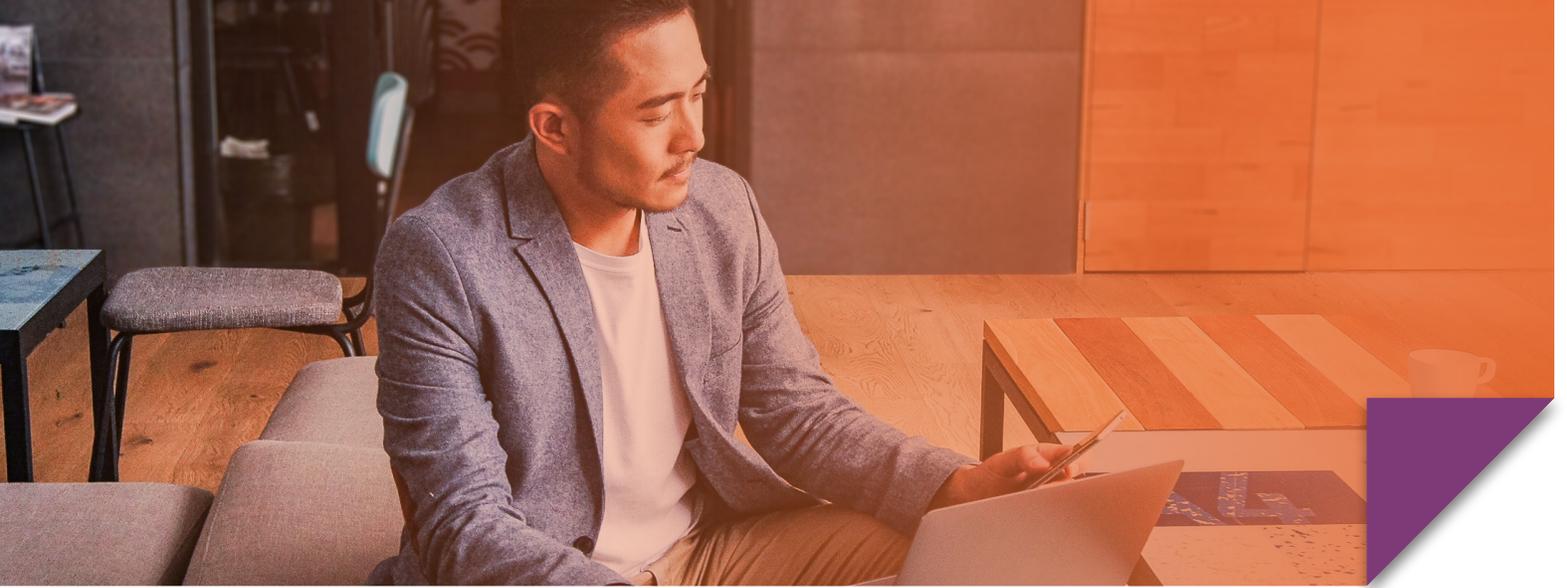
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# What You Need to Know About Talent Intelligence Platforms

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From Eightfold





## What You Need to Know About Talent Intelligence Platforms

Talent Intelligence Platforms, driven by artificial intelligence, help talent-acquisition and human-resources departments manage every part of the employee lifecycle, from the candidate experience to sourcing, screening, hiring, retention, and internal mobility. This Eightfold White Paper describes these platforms, and describes the artificial intelligence behind them.

Historically, the reach of AI was limited by computing power, access to data, volume of data, etc. But that's no longer, due to the advances in deep learning, and big data.



**AI is everywhere. This AI software market is growing at 154 percent annually.**

AI will be embedded in every industry and business process, from health to education to transportation.

Human capital is no exception; virtually every business will be using AI for people, for their workforces, within years, not decades.

AI can help address the talent gap in our society between the skills and potential that people have and their ability to express their individual gifts. Imagine what would happen if every person could do their best and most fulfilling work.

It would unleash a huge wave of productive energy into the world, and allow for much greater personal satisfaction.

All it takes to achieve this is to show each person what types of careers they can pursue, how to pursue them, and what it will take to reach their goal.

Artificial intelligence can help us understand the skills, capabilities, and potential of each person, and help them see how they can proceed through their careers in the way that matters to them. It can be used by companies to transform their talent acquisition, employee retention, and candidate experience to focus on the potential of each individual.

Talent Intelligence Platforms are a big part of this. These are intelligent platforms, AI-driven platforms, that help companies through the whole employee lifecycle.

These Talent Intelligence Platforms, these systems to hire and manage a workforce driven by AI, can help a company see past the traditional resume, and understand the capabilities of what someone is capable of doing in their next roles.

The adopters of AI today will build a moat that the adopters of AI tomorrow will struggle to compete against—they will be acquiring, developing, and retaining talent at a higher impact level. They will use it for talent to go beyond dated processes.

These processes have relied on resumes, keywords, job descriptions. They've caused unnecessary turnover. All sorts of excessive sourcing costs. Employees frustrated over the lack of internal mobility.

Talent Intelligence Platforms can use AI to see who to hire, how to screen, how to retain people and move them internally, and how to plan succession. For individuals, they can help them see what jobs are available for them, who they might work with, and then once at a company, what jobs they could switch to and what skills they need to get there.

Let's take a look at five aspects of this. Talent Experience, which is all about the initial career site and experience a person first has when looking at jobs. Talent Acquisition, which is sourcing, recruiting, screening, and marketing.

Talent Management, which is all about retention and internal mobility. Diversity, which includes preventing bias as well as diversity analytics. And finally, contingent, contract, or gig work. After that, we'll talk a little deeper about AI, getting into a little bit about what is AI and what is not AI.



## AI and the Talent Experience

Companies are trying to differentiate themselves, spending millions on branding, advertising, bells and whistles on career sites—all in the end often resulting in little differentiation and personalization.

### **Without sufficient use of AI, that branding/marketing money is money wasted.**

The searches on career sites are often not practical. Take a career site from a car company (which we recently looked at). It first asks job seekers to search by departments like corporate, product, global, or strategy. As a job seeker, it is unclear which department is best.

Even assuming the job seeker could guess the right department, once they do the search, the site tries to match them based on a title and what they're doing now, and what they've done. It doesn't really look at what skills they have that can be redeployed elsewhere for a different job, a new challenge.

There has been a lot of talk about improving this sort of thing—talk about the “candidate experience”—but not a lot that addresses people as individuals.

The entry-level job seeker looking for a job at a restaurant chain sees pretty similar content to an attorney looking to be that chain's in-house counsel.

### **AI can change that:**

- AI can show people who they'd be working with.
- AI can show them content that relates to them, like video or blog posts.

What the AI does is take information from a billion plus profiles of people, put together from hundreds of public data sources. It can then analyze that against someone's resume, or biography, or LinkedIn profile PDF.

At that point it can help a candidate see what skills they have that match up to certain internal jobs. They can see the best matching job for them.



It saves a lot of time versus the old approach of blasting a resume everywhere, and like was pointed out earlier, searching for a job and not really finding a true match to their skills. It makes the candidate experience more personal, more individual—everything that has been lacking for so long as so much money has been spent in recruitment advertising and marketing and career sites.

Let's talk about an example. Imagine someone uploaded a resume to an AI-driven website, and they were a software engineer at a large healthcare company. The AI might know something about their skills, even if they didn't list them in their resume. It'd have some knowledge, after looking at millions of profiles of others at their company, of what they likely brought with them to a potential next job.

On top of that, it'd be able to compare the skills that this software engineer at this healthcare company likely had—whether they are soft skills or hard skills—with the skills that someone with the exact same title at another healthcare company had.

It can know that a customer-service person at one coffee chain or retailer is different than a customer-service person at another chain, because those businesses are different.

It can know that a product manager at one company is more technical or more business-oriented than a product manager at another company. The AI has analyzed so much data and seen so many career paths, that it knows what skills are used in various departments of different companies.

It also would be able to round out someone's profile, again even if they didn't have all this information in their resume, by analyzing hundreds of public data sources with information about them.

That software engineer at that healthcare company may be a good multitasker, or a good unitasker for that matter, and based on public data about them, the AI might know that just based on their experience, title, and company.

It could then take that information about them and see how strong a match they are to a job at any company.

Everything we've been describing here— it's such a far cry from an old-fashioned keyword search.



## AI and Talent Acquisition

Companies say they can find people—but not the right people. They have a lot of resumes—but not matches. Not the people they want.

Existing employees are often ignored while money is poured into finding the proverbial “purple squirrel.” Employers are spending millions on agencies, sourcing firms, headhunters, and so on to try to find the elusive purple squirrel/ unicorn candidate.

AI can help avoid this, finding candidates who have the right skills for the job at hand. These candidates are being ignored because they attended a college or work for a company the employer may not know; have skills that are not listed in their resume; or, often, are an internal employee unaware they’re a great fit for an open internal role.

Companies also have a lot of past applicants who’ve been told “we’ll keep your resume on file and get back to you.” But will companies get back to people? Do they know who to get back to? Often not. Alumni are forgotten when they leave the company.

Employee referrals get lost in the system and no one knows what happened to them.

Talent Intelligence Platforms can use AI to surface people, the right people for a job. They are AI-driven platforms that help companies manage the whole employee lifecycle.

A user, such as a recruiter or manager, would have an open job, and they can describe what’s needed for that job. They can even indicate some of the people they’d love to clone if they could—ideal candidates—and the AI can see what skills those ideal employees have, to find someone who matches those skills.

The people a recruiter or manager searches for in a Talent Intelligence Platform can be past employees, people who have applied before, passive applicants found online, and new applicants for a job.

Companies can have a network of people—maybe 200 times their employee population—in one area where they can source from, a Talent Network.

This network can consist of profiles of people continually refreshed. So someone who applied five years ago will have their profile automatically updated. That person may fit into a job now, and may have gained valuable skills and experience over the last five years.

This really changes the hiring manager/recruiter relationship. The two parties can together look at an open job. They can list the skills necessary to get that job and succeed in it. They can see which employees in the Talent Network are a match. They can then adjust their needs to enlarge or shrink the pool of candidates.

And again, AI can be used to match anyone. The person who quit three years ago for a new challenge may be a good match for a job now. How about the person almost hired last year?

Talent Intelligence Platforms and a Talent Network—that big network of past applicants, alumni, passive candidates, and employee referrals—can handle all these situations.



**AI can help in the screening process, by taking a look at what skills employees have that may not be apparent.**

As an example, let’s say a company wants a marketing person who knows a certain marketing technology. But, let’s assume that technology is not listed in a given candidate’s resume. The candidate left it off their resume.

The AI can indicate that it's very likely, based on that person's work history, that they actually do know that piece of technology.

It has analyzed so many hundreds of millions of people, applied such advanced learning to that, that it knows a lot of information, with a high degree of likelihood, that's not explicitly stated on a resume.

Anyhow, once recruiters have all these people—these leads—in a Talent Network, they can market to them. They can use this CRM to send people emails with content of interest to them, like volunteer

work the company is doing, or stories of company employees who got great promotions, or patents the company earned.

These marketing campaigns can be segmented—for example, they could just be sent to company alumni, or just to people who are graduating from certain colleges.

Employee referrals can be handled by matching a referred candidate to the correct role using AI, removing the job-placement burden from employees.



## Diversity

There's a huge need for diversity. For one thing, customers are more diverse. So to understand and serve them better, companies need to be more diverse. Employees. Contractors. Contingent workers. Boards. Suppliers. And so on.

**That's all a challenge. People are inherently good, but we're all biased: Our histories and experiences can create subtle, unconscious biases which can lead to non-objective decisions, especially when it comes to hiring.**

Let's take an example. Two universities may be just as good. But a company may favor people from one and not the other. They consider it to be really elite, and not the other school...but only because the recruiter or manager hasn't heard of the other school!

What if that college they haven't heard of is mostly female or most all minority? They may be accidentally discriminating. They could be biased against people who attended that university, without being intentionally prejudiced against any one group of people.

AI can solve this. It can mask people's identities like gender or race, hiding their name, their photo.

And AI can go beyond that, such as hiding that someone went to a certain college that's mostly female, or hiding that they played field hockey or synchronized swimming—sports that are mostly female—instead, just saying that the candidate got four varsity letters.

AI and talent intelligence platforms need to achieve the highest equal opportunity standards for achieving diversity. They need to be regularly updated, monitored—so that when new features are added, the need for bias prevention is always considered.

Talent Intelligent Platforms also can provide analytics. Where are people dropping off in the hiring cycle? Are minorities not being interviewed, or dropping off at the offer stage?

Many people don't self-identify their race or gender, but AI can infer that information, and help companies build those analytics.



In about **90 percent of cases**, AI knows from the profiles it has built from hundreds of public data sources whether someone belongs to a group targeted for recruitment, such as if they're a veteran, or have a disability.

The great thing is that an AI-driven talent-acquisition system can help you make adjustments to be more diversity-friendly. If analytics suggest that too many female candidates are being eliminated, the parameters set could be adjusted, and a search of the Talent Network would generate a different and more diverse set of candidates.

Or, a company could build a relationship with diversity in mind. It can target people, for example, who attended a Hispanic or Black MBA event, or perhaps the women-in-technology event Grace Hopper, and over time serve them content that may be of interest to them.

AI can take a look at a blog post for example, on a company's website, or a press release, or most any other information from a company, and build a campaign around it, automatically knowing who'd be interested in the subject the blog or press release is about.

Overall, AI can help move to a situation where a company is making decisions based on skills. That's really where AI excels—inferring what people's skills are. The goal is for two people with the same skills to have the same opportunity.





## AI and Talent Management

Companies often don't know skills people have. They often don't know how to deploy and redeploy people.

People often quit for new challenges. Sometimes those people who quit could have found those challenges in the form of open jobs in their own companies! This turnover is costly—not just the cost of hiring, but the cost of customers losing their point of communication and companies losing so much knowledge.

Sometimes people are laid off—but they could have had their jobs saved if there was a job internally they knew about, and fit for. And employees are told these days to drive their own careers, to manage their own futures.

But they don't know what they need to do to get a new internal job, or what is available that matches their skills—especially if it's in another department or location.

### AI can change all this.

It can break down a person's profile and history into skills. At that point a company can see how to redeploy those skills, thinking outside the box of “this is the job they do now, and there is no other opportunity for them” to a new way of thinking of putting those skills to work elsewhere.

Let's say a manager has an open job in the accounts payable department. It requires customer service skills, and attention to detail.

AI can show them there's a matching employee within the company, maybe in another location and division—who the manager never would have thought of.

And the same thing can happen for the individual, from their—the employee's—perspective. In other words, the AI can look at a person's profile and know what skills they have. At that point an employee can proactively—instead of quitting for a new challenge—see how their skills could lead to a new challenge internally.

Let's say an employee sees a role open internally in the finance department. The AI can see that their skills are a good match, but that they'd be a stronger match if they took one tax-related course unique to that company's industry.

That employee would know what they need to move from job A to job B, and even find that course available through the company's learning management system.

Or, say there's not an open role. Let's assume an employee is interested in being a design director in their company, but they are not now. And let's say that they're a designer, but not a director.

They can take a look at what paths people have taken to get there, what skills and characteristics other design directors have had, and they can click right there and then to the LMS to sign up for classes that will help them move from designer to director.

AI helps companies redeploy people who otherwise could have been laid off, by seeing how their skills can be used elsewhere in the company.

And it can help companies see who's a flight risk. AI can take a look at how long the typical person has been in a certain role, and if someone's in a role too long, they may be getting ancy.

Even succession planning can be handled within a Talent Intelligence Platform—companies can identify who has the skills they need to fill a role when it opens up.

The most important thing though is that companies using AI won't need to wait for the exit interview to ask people why they quit. They can preempt turnover by finding new challenges for their employees while they're still there.

## AI and Contingent Work

9.2M

Intuit and Emergent Research predicted that the number of people working on-demand or gig jobs will grow from 3.9 million Americans in 2016 to 9.2 million by 2021.



**According to ADP, One in six workers in organizations is a gig worker. And in about 40 percent of companies, one in four workers is a gig worker.**

There are tremendous advantages of using contingent work for businesses now as technology changes organizations so much. Companies can hire people who have expertise in a given technology, expertise they may not need in five years. And businesses can be more agile in adding contract workers as demand increases, or reducing them if there is a recession.

Despite all this, many companies don't put the same time and effort into managing contingent workers, even if they represent half of their workforce!

A lot of businesses don't have a lot of valuable information about these one in every four or six employees. They're hugely important, but businesses don't know what skills they possess. On top of that, people come and go and they're often lost.

Contingent workers' knowledge often walks out the door when they do. Someone is great—and you want them back a few months later—but a third-party company, not the company having the contingent worker do the work for them, has a relationship with the worker.

The planning and management of contingent workers is often being done with a scattershot approach. Many big companies just don't know what they're spending on contingent work, and all the various companies they're using to manage that contingent work.

### **AI can offer a different way.**

Using a Talent Intelligence Platform driven by AI, companies can maintain a network of their part-time, contract, flexible workforce. They can match the skills they need for a contract job with potential contractors, and find the right person based on the AI.



The beauty of this is that the AI is continually updating people's profiles. So a company can see that the person they had last year now knows a new computer language they didn't before. They can see that they're a great public speaker, even if that wasn't explicitly stated in their bio or resume.

Instead of losing track of people who did contingent work a month or a year ago, companies can have them back if they're part of their Talent Network. They can use that Talent Network to have a full-time employee take a contingent gig. Or, the reverse—they can search their contingent-work network for someone to convert to full-time status.

When doing employee referrals, a company could even potentially ask the person doing the referring, or the one being referred, if they might like to also consider contingent work. Also this can go into a big Talent Network for a company to manage contingent workers.

What might be the icing on the cake is that a company could create a customer-facing website. In other words, imagine an AI-powered career site, but for bringing on contingent workers.

And again, the important thing is here is the artificial intelligence. Doing a keyword search of a database of potential contingent workers is of limited value. What's really powerful is by using a large network of potential candidates, and layering on AI, a company can see what people's skills are likely to be, even if they didn't directly mention them on their resumes.

They can get a sense of what job a contingent worker would excel at doing, by having the AI know what skills they possess and what skills are needed in open roles. They can know just by the fact that they worked five years at Amazon or Caterpillar, in a certain department, with a certain title, what skills they're likely to have—both hard and soft skills.



## A Deeper Dive Into AI

Let's talk about artificial intelligence a little more. AI is a phrase you hear thrown out a lot. But most of what you hear isn't really about artificial intelligence. It's really not AI.

A lot of matching, such as on a career site where someone searches for a job—it's based on keywords. Does a person's resume have the word Java in it? Does the company want someone who knows Java? That's a match.

### **That's not artificial intelligence.**

AI requires a massive amount of data—it can involve more than a billion profiles of people, a large proportion of the working world. Then really advanced machine learning and neural networks are used to discover patterns in those profiles.

AI can have a sense for our skills, even if we didn't list them on our resumes, bios, or LinkedIn profiles. Let's take a company looking for a marketing person. It wants someone who knows Marketo. But that's tough, because not everyone says in their resumes that they know Marketo, even if they do. AI can tell a company that it's highly likely that a certain job candidate, based on where they've worked, and when, and in what role, knows Marketo, even if it's unsaid.

Look at it this way. Let's say three people have both worked as product managers. One of them worked at Google, one worked at Honeywell, and one worked at Delta Airlines.

The AI has examined the careers of so many people, and the skills people have, that it can actually know how one product manager job is different from another. It can know with a high degree of certainty that the person from Honeywell had certain types of skills and maybe the Delta and Google people did not, or vice versa.

AI can not only project and predict a person's next job, but even one five years later. It has seen so many profiles that it can get a feel for what skills and experiences have led to future skills and experiences.

AI can reduce the superficialities and assumptions we have. Perhaps we're sure that people who attend college for four years are "better" salespeople for a company than people who took five years. The AI may or may not find that to be true.

The AI could potentially eliminate the "college in four years versus five" accomplishment and that bias as a screening factor when searching for the best matches for a job. Perhaps it could find that attending college at all does not lead to success in a job at a certain organization.

Another thing AI can do is skills adjacency. AI knows what skills are closely associated. So it can see that if someone knows Python, they are a great candidate to learn another computer language. Only with a huge amount of data and really advanced artificial intelligence can this be done.

This "skills adjacency" can be done with soft skills. Maybe a company is looking for someone who's good at operating in a fast-paced environment. The AI may notice that someone's resume doesn't explicitly say that they enjoy fast-paced environments, but perhaps there's some adjacent skill, perhaps multitasking as an example, that the person does have, that the AI recognizes as a skill that helps one excel in a fast-paced environment.

The AI could know that people who were in one role—let's say the head of sales, or even the head of a military unit—in one organization are very, very likely to have certain soft skills.

This intelligence can be embedded into every part of a Talent Intelligence Platform. It can be used on a career site to match people with a job that matches them, even if they haven't done a job with that title.

It can be used to build a pipeline of candidates for a recruiter or hiring manager, reducing bias and assumptions. It can be used by human resources to see who would fit in a new role that's different from their current one. And it can be used by employees to plan out their future career moves. And it can even be used in contingent work, to find a strong match among contractors, temps, gig workers, seasonal employees, and part-timers.



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