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A Guide to Deep-learning AI

All AI-powered talent intelligence platforms are not created the same—here is what you need to know



You might hear a lot of claims about AI driving talent intelligence in HR platforms these days. Artificial intelligence is a complicated subject, and the applications of AI in HR are many.

So what does it all mean?

AI breaks down into subsets, including machine learning and deep learning. You probably hear these terms used interchangeably, but their nuances are important for a few key reasons.

In addition, there are different types of AI.

Generative AI

Generative AI is a branch of artificial intelligence that focuses on creating new content by learning patterns from existing data. It uses deep learning models, especially neural networks, to generate outputs that resemble the data it was trained on.

For example, Generative AI can produce text responses that sound human-like or create realistic images based on written descriptions. This capability opens up new possibilities in content creation, design, and personalized user experiences.

Agentic AI

Agentic AI refers to artificial intelligence systems designed to autonomously plan and execute complex, multi-step tasks in order to achieve specific objectives. These systems have advanced reasoning and iterative planning capabilities, allowing them to operate with minimal human intervention.

In the field of talent management, for instance, agentic AI has the potential to transform processes by automating routine tasks, enhancing decision-making, and providing personalized recommendations for employee development.

Agentic AI systems can boost efficiency and effectiveness in dynamic environments by continuously learning and adapting to new information.

Let's break it down:

AI



AI is the broadest term for classifying programs that can sense, reason, act, and adapt.

Machine Learning



Machine learning is a subset of AI in which algorithms improve their performance as they are exposed to more data over time.

Deep learning



Deep learning is a subset of machine learning in which multilayered neural networks learn from vast amounts of data.





True deep-learning AI does the manual, time-consuming part of your job for you

Even if you loved crunching numbers in spreadsheets, it would be impossible to glean all the talent insights that you need to make the best decisions in today's ultra-competitive talent marketplace.

Approximately 80 to 90 percent of any organization's data is unstructured, raw information in many formats that isn't "clean" or ready for analysis, and it's tough to store and manage in a static database.

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It's not about to get any easier.

The global data boom is well underway, with projections of the 64.2 zettabytes we reached in 2020 to grow to more than **180 zettabytes by 2025**.

2020

64.2

zettabytes

180
zettabytes

2025
Projection

The digital transformation spurred by the pandemic has only accelerated this transformation, and there's no going back as people do more of their daily activities—especially their work—online.

With more data about people's skills and potential emerging every day through the use of AI, how would you know that you were targeting the right candidates, mapping out the best career paths, or even hiring the right contingent workers without the help of AI—and at scale across an entire organization?

AI-powered talent outcomes



Talent outcomes

Autocalibrate jobs with future skills

Hire for potential

Create personalized upskilling journeys

That's where deep-learning AI comes in—to sift through the unstructured datasets and surface the most helpful insights. A true deep-learning AI talent intelligence platform uses neural networks to identify critical information about the entire talent ecosystem, including the best candidates for the job, learning pathways for employees to upskill, and which contingent workers should be redeployed to new projects.

Deep-learning AI even helps you better understand where your market and industry are headed with personalized talent insights, so you can better prepare for the future.

A true AI-driven talent intelligence platform will automate the most time-consuming and tedious aspects of any HR or recruiter job, so the best parts of the job—connecting with and helping people reach their true potential—are left to the talent leaders.



AI will help talent leaders by:



Removing or reducing menial, time-consuming tasks like resume searching and screening, surfacing the most qualified candidates.



Automating repetitive tasks in the recruiting process to provide a more reliable, consistent candidate experience.



Surfacing undiscovered talent for roles they might excel in and giving talent leaders even more visibility into their workforces.



Helping talent leaders meet and exceed goals more efficiently and cementing their status as critical contributors to an organization's overall goals.

Deep-learning AI, talent intelligence for a new era

“Talent intelligence” is frequently used to describe HR platforms, but it’s difficult to know if these platforms are truly intelligent backed by the power of deep-learning AI.

Let’s look at what a deep-learning AI talent intelligence platform does.

An advanced AI-powered talent intelligence platform applied to your enterprise system should reveal a comprehensive understanding of your workforce’s capabilities, but also every person’s abilities, skills, and potential to learn for the role.

But talent intelligence must be built on a broader, deep-learning AI model—this is where the magic happens.

The overall breadth, scope, and quality of the global dataset captured with a talent intelligence platform matters. Those millions—even billions—of data points are what powers the platform. When you are pulling from larger, more inclusive sources, this helps ensure that the dataset is providing the most accurate recommendations about jobs, candidates, careers, and skills at scale for any type of work anywhere in the world.

Global datasets should also be refreshed and updated to deliver real-time insights about every person’s potential, career trajectory, skills, and more. AI should be continuously self-updating, helping offer even more relevant talent information and insights backed by current data.

Harness the power of talent intelligence



A true AI-powered talent intelligence platform:

- Helps you better understand your company, answering questions like “What skills do I need to achieve my business goals?”
- Helps you adopt a more equitable approach, including what skills people are capable of learning quickly, and easily determine the health of your talent pipeline across the entire organization.
- Helps you better understand your market, including what skills competitors have and which ones you need.

How AI can make work better for everyone

AI can help talent and business leaders find, hire, retain, promote, and re-engage talent. And it also can play a huge role in reducing unconscious bias.

When it comes to any talent intelligence platform, talent leaders should ask how the AI works to target and reduce bias.

AI can help any organization reduce bias by quickly and accurately assessing thousands of resumes and identifying applicants who may be overlooked because of human bias.

It also has the ability to expand any organization's talent pool and increase opportunities using a deeper understanding of skills adjacencies and learning. A platform should expand the opportunity for choice—not limit it—and provide additional data for all people to make more informed decisions.

This helps create a fair, inclusive, diverse workplace that welcomes people from all backgrounds based on their potential to succeed.

Benefits of responsible AI:

- Illuminates where great candidates might be dropping off in the funnel, encouraging best practices for DEI, and inviting more diverse candidates into the talent pipeline.
- Masks personal information like names, locations, schools that traditionally trigger unconscious bias about individuals on the basis of their gender, race, age, sexual orientation, or disability status.
- Quickly finds and surfaces the best candidates based on skills, capabilities, and potential for the recruiter to engage, leveling the playing field for all candidates.
- Helps remove limitations and potential bias in resume review, job description writing, and interviews.



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“I think in 10 years or sooner, AI will be the standard of care,” says **Craig Leen**, former Director of the Office of Federal Contract Compliance Programs (OFCCP) at the U.S. Department of Labor. “You’ll have to use AI. You can’t just rely on humans making decisions that are affected by unconscious bias.”

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10 QUESTIONS

to ask a vendor about the scope of their AI:

- 1 Are the AI recommendations based on rule-based systems or real-time deeper analysis of global data?
- 2 Can the AI support recruiting, reskilling, and retraining?
- 3 Does the AI enable the following talent functionality: skills matching, career predictions, candidate experience, and bias mitigation?
- 4 How does the AI surface in the product, and does it provide explainable insights on why recommendations or matches were made?
Are these recommendations actionable and made in real-time?

How their AI uses data:

- 5 Does the AI require you to provide any data to start making recommendations?
If so, what is needed to prepare the data?
- 6 What does the AI need to function correctly? How does it learn over time?
- 7 What's the typical time from agreement until going live with the AI?
- 8 Is the AI trained on regional data, or global diversified datasets?

How AI enhances equality and diversity:

- 9 How does the AI mitigate against legacy bias in historical recruitment and employee data?
- 10 Can your AI mask personal information to provide a fairer opportunity to diverse candidates?

Ready to learn more about what deep-learning AI can do for you?

Let's talk!



Contact us at info@eightfold.ai



Visit eightfold.ai to request a demo



Eightfold AI's market-leading Talent Intelligence Platform™ helps organizations retain top performers, upskill and reskill their workforce, and recruit talent efficiently. Eightfold's patented deep learning artificial intelligence platform is available in more than 155 countries and 24 languages, enabling cutting-edge enterprises to transform their talent into a competitive advantage. For more information, visit www.eightfold.ai.