

# How to Use AI in HR — Intelligently

FROM THE DATA EXPERTS AT  Lightcast

A smart guide to using artificial intelligence  
in HR and planning for what's to come



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## **How to Use AI in HR — Intelligently**

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# AI Is Changing People Management: Here's How to Use it Wisely

Human resources teams have been leading the way in adopting new artificial intelligence tools to analyze and clean data, plan team growth, build skills taxonomies, improve the employee experience, develop career paths, and market the company. In early 2022, [a quarter of HR organizations reported using AI](#). By 2023, [38% of HR professionals are now using AI in their day-to-day role](#), and 33% would like to try AI tools.

The “AI Boom” has led to near-constant discussions about the potential of generative AI and AI-powered tools in people operations and talent management — and the growth in demand for AI-related jobs. In 2022, [Lightcast data showed](#) that 2.05% of U.S. jobs involved skills related to AI: nearly four times higher than in 2014. Postings requesting generative AI skills

grew six times in just the first five months of 2023 compared to all of 2022.

AI jobs grew 6X in the first half of 2023

But finding success with AI tools, paradoxically, demands human intelligence and judgment. AI is only as powerful as the data it draws on. If the data used to underpin AI tools is too small, too biased, or too full of gaps, artificial intelligence will fall short, or even make problems worse.

In this guide, we share what Lightcast has learned in more than 20 years of working on AI-based job data. This guide is designed for HR leaders to seize the opportunities where there is huge potential in AI to make HR more efficient, effective, and equitable.

## We'll look at:

- » The most promising ways AI can be used in HR
- » Potential pitfalls in adopting the technology
- » How to be a smart consumer of AI products

At Lightcast, we believe that artificial intelligence should be used to expand human opportunities and HR will be at the forefront in unlocking that potential. We hope this guide will help you approach the rush to adopt AI thoughtfully, ask the right questions, and build upon what's still to come.



**Chris Kibarian,**  
CEO, Lightcast



# Get access to data that moves businesses forward

Every day, Lightcast pulls information from 51,000 sources, including job boards and company websites, to build an unparalleled view of the labor market with a database of

- » 1+ billion current and historical job postings
- » 300+ million career profiles
- » 100 million salary observations
- » Coverage of 150+ countries

The Lightcast team (of humans) has more than 20 years experience in analyzing this massive dataset, in conjunction with AI, to provide real-world skills matching to jobs in the market.

Lightcast data has the breadth and depth to power practical decisions, enabling employers to plan their talent strategy, train their workforces, and find workers in a dynamic labor market.

**To be effective, you need to blend outside sources with your own data to see the whole picture**

[Explore Lightcast data →](#)



# How AI is Transforming HR Operations

Data scientists and modeling experts already use internal data to build predictive models about retention, promotability, career pathing, and hiring — but good AI tools incorporate trusted external data for meaningful context and comparison. Below we examine four major HR use cases for artificial intelligence with the potential pitfalls, opportunities, and guiding questions to get started.

“When harnessed correctly, AI tools with robust comparison data can identify pay equity gaps, when someone would be a good fit to evaluate for hiring or promotion, and to help identify and improve the different drivers of attrition.”

**Jason Bartusch, Vice President, Strategy and Growth at Lightcast.**

## 1. Identifying internal skill gaps and developing internal talent

Most companies know a great deal about what their employees currently do, but not nearly as much about what they are capable of doing. There could be hidden talent pools within the organization of workers whose skills are currently untapped—but which could be unlocked under the right circumstances.

AI tools, combined with a skill-based hiring strategy and a strategic workforce plan, offers the potential to develop internal talent in new and exciting ways.

AI tools can analyze and infer the expected skills of employees at a particular company, or within a specific team, to determine which skills might be missing. Or, it can be used to identify current employees who have most, but not all, of the skills required for advancement. Then, the AI tool can suggest

learning paths and skill-building activities for teams to develop and promote internal talent — instead of opening new roles and hiring externally where it may not be necessary.

A strategic workforce plan is essential. Without sufficient data and experience managing talent and helping employees grow, tools can suggest the wrong career pathways or illogical next steps, wasting resources and money.

### Five questions to ask when using AI in developing internal talent:

- » 1. Have you developed skills-based career pathways for your employees? In other words, do you know what skills allow employees to advance up the ladder?
- » 2. Are these paths transparent and understandable to the employees?
- » 3. Do you have the learning and development resources in place to allow for internal development?



- » 4. What dataset has your AI tool been trained on? Is it limited to your own data or does it include external data?
- » 5. Is the AI tool consistent with your company values and goals?

## 2. Increasing the number of well-matched candidates

Every company struggles to sort through a torrent of incoming applications and find the right talent. A good recruiting strategy involves setting realistic expectations based on the current labor market, using the right tools to track and manage your processes, understanding your specific markets and industries, and evaluating each staffing decision based on concise and actionable data. By tracking the skills of candidates and matching them to the skills needed in an open role, AI tools can narrow down large pools of applicants to the best-matched candidates.

Companies that have Applicant Tracking Systems have access to a large base of information on who applies, who is hired, and what skills applicants have. This can and should be enhanced with external data on jobs and skills in the broader labor market.

Making decisions using only internal data can lead to recruiting for mismatched skills and roles. Without the context of external job demand for the same role, companies might miss out on gaps in skills and hire for the wrong roles.

In addition, relying on internal data raises the risk of “baking in” existing hiring problems. AI tools with small or biased data sets can lead companies to only shortlist the applicants who are most similar to those already hired. That could lead to allegations of bias. So it’s crucial to thoroughly vet AI matching tools and to not follow recommendations blindly. Also, to both avoid bias and ensure privacy, AI tools should not use personally identifiable information (PII) in the process.

### Five questions to answer when using AI in candidate matching:

- » 1. What are our overall hiring goals? What skills or other requirements are most important to our business?
- » 2. Have we mapped our skill needs to job descriptions, ensuring we have the basis for matching?
- » 3. How will the HR team be able to review and vet the AI system’s recommendations?

- » 4. Is the AI system compliant with applicable legal guidance on hiring?
- » 5. How will an AI-based strategy relate to our diversity, equity, and inclusion goals?

## 3. Setting salary benchmarks

Salary benchmarking is where companies compare their job titles, job descriptions, and pay ranges to similar jobs in and outside their company to set accurate salary parameters for their current and future employees.

When companies set salary benchmarks, many start by looking at internal historical data on their own employees. Applying AI tools onto internal employee data can be risky. If employees have long been underpaid at a company, an AI tool that only learns from the internal data will perpetuate the compensation problems.

In addition, nearly all companies use compensation surveys (which are okay), but most are annual surveys and move too slowly to keep up with market changes. These surveys typically don’t translate well to a company’s job structure either, making the benchmark a stretch.



Human-assisted AI tools like [Lightcast](#), that have massive global datasets, can help teams create accurate benchmarks that ensure all employees are paid the right amount. Powered by external data from across an industry or country, companies can find the sweet spot of offering the top end of expected ranges, without going overboard and damaging company profit margins.

In addition, when companies enter a new territory they need regional salary benchmarks. Cost of living and salary expectations vary widely, and self-reported data from Glassdoor and similar sites isn't enough. Using global data sets from Lightcast helps companies start out on the right foot in their expansion.

#### **Five questions to answer when creating a salary benchmarking plan:**

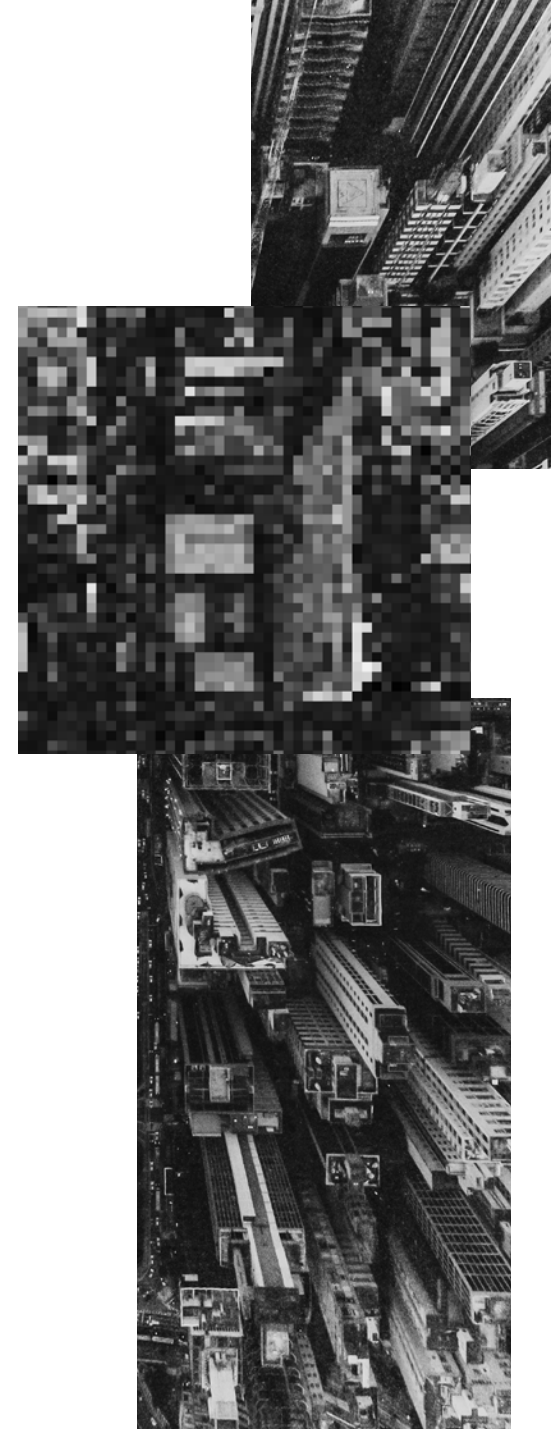
- » 1. What data are you using for salary benchmarking—is it up-to-date, comparable by industry, regionally relevant, and include companies you compete or benchmark against?
- » 2. Does your company perform regular assessments for employee skills and development?

- » 3. What standard is in place to ensure HR is meeting state and federal regulations?
- » 4. How long has it been since your company has aligned salaries to market standards?
- » 5. Is the AI tool you're looking at trained specifically for salary and compensation benchmarking? If so, what kind of data models were used?

## **4. Predicting and planning for employee growth and selecting new locations**

Market selection is an important but underappreciated talent function. It includes identifying what regions have a strong talent pool to support a new facility (site selection) as well as understanding future skill needs and where to find workers (long-term demand and supply planning). HR teams already use data models to track how the company has grown, what goals have been met to facilitate growth, and how projected revenue (and other objectives) justify business expansion.

Broad-based labor market data can pinpoint potential talent opportunities, while AI applications can make the actual analysis



easier. All of these processes can help speed up time to hire and time to productivity — and good AI tools will help companies identify areas of inefficiency to fix.

Again, broad external data sets are essential for accurate analysis. All companies will have limited data on some roles, especially ones that are not hired for often or roles that have low census counts. If the company is moving into an entirely new field then the problem is even greater (how can a company have internal data for a role it has never had to recruit for in the past?)

Often, companies with smaller datasets may find that they don't have enough to supply AI models or make predictions. To make planning decisions internationally, many tools have limited global data. AI is ineffective with limited data.

**Five questions to answer when you are creating a market selection plan:**

- » 1. What is the existing supply of workers with skills your company needs?
- » 2. What is the supply of these skilled workers in a specific locale? Are there more workers in the pipeline?
- » 3. What are the historic compensation trends in a region?
- » 4. How many competitors are seeking the same talent?
- » 5. Does your AI have data covering the region and skills required in this case? Has it trained on market selection?





# Challenges and Opportunities for Using AI in HR

Understandably, many HR professionals are wary about AI innovations — [AI involvement in hiring decisions](#) has already been addressed by the Equal Employment Opportunity Commission. There are risks associated with AI technology — and how companies use them.

It's important to weigh the risk of different activities left in the hands of AI. Enlisting AI tools to help plan an employee event is one thing, but letting it inform the decision to terminate an employee is much riskier.

There are four primary concerns with AI technology: transparency, bias, over-reliance, and data privacy risks.

## 1. Data trust and transparency

Up-to-date, trusted information is crucial when ensuring companies are moving

towards diversity, inclusion, and ensuring HR is managing people decisions effectively. A snapshot of time, or benchmarks from 15 years ago, won't be accurate enough.

But even if the information is up to date, the decisions made by an AI system have to be clear and explainable. The AI tools used in HR can't be "black boxes," where [it can be impossible to understand why an algorithm took a specific action](#). That approach puts HR managers in an untenable position. Hiring and promotions must be explainable and defensible to candidates, colleagues, managers (and potentially courts and regulators). Otherwise companies could face serious morale problems and legal consequences. Teams dealing with people need to know exactly why decisions were made and candidates were selected.

## 2. Biased input and biased output

[AI tools can produce outcomes that worsen discrimination against marginalized groups](#), which is why HR teams need to understand how bias may be consciously or unconsciously impacting results from AI tools before using them to make decisions.

"The more expansive the dataset that you can use, the more diverse the data will be, and AI tools and models can generate more equitable outcomes."

[Mark Hanson, Vice President of Strategy, Skills & People Analytics at Lightcast.](#)



### 3. Overuse and overreach

Because AI provides users with huge time-savings in an increasingly time-strapped society, it's easy to envision a world where companies lean too far into AI.

With data at HR's fingertips it's going to be tempting to use AI to find quick answers, but realizing where data comes from and the impact of how that data is being used to drive strategic decisions is important.

Plus, AI tools aren't good enough at making decisions on their own: relying on AI tools and letting their output go unchecked can lead to poor decisions. This is particularly relevant as AI tools are still prone to problems like "hallucinations," all-too-plausible answers that are actually wrong. And in HR, the stakes are high: people rely on their HR teams to enable them to make a living — not reduce them to a statistic within a list of company metrics.

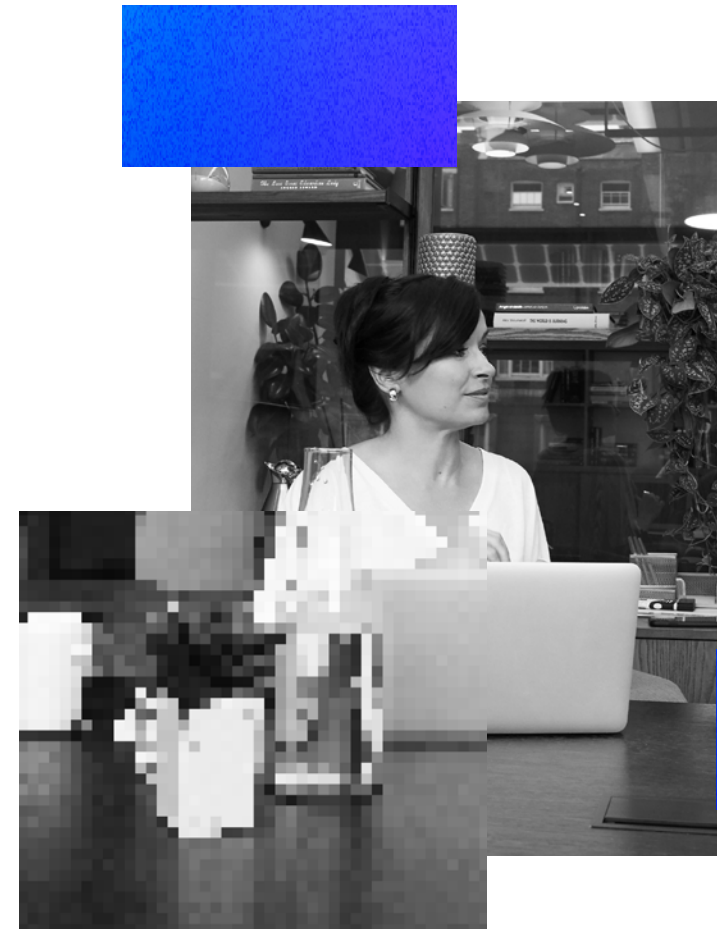
**The key to using AI in HR is to take it as a tool, not as a replacement for the people doing this very people-centric work.**

### 4. Data privacy issues + security risks

Because AI is so buzzy right now, new AI tools and companies are cropping up everywhere. When data is shared at scale, it's more prone to being compromised. And since HR data is among the company's most sensitive information, bringing on an AI HR tool from an unvetted company is a bad idea.

"To maintain data privacy and promote unbiased skills matching, we do not use personal identifiable information (PII). We focus on skills, and get rid of the PII data when we bring it into our models. When we build our models, we know that it'll just be matching skills with roles, and our data sources are protected."

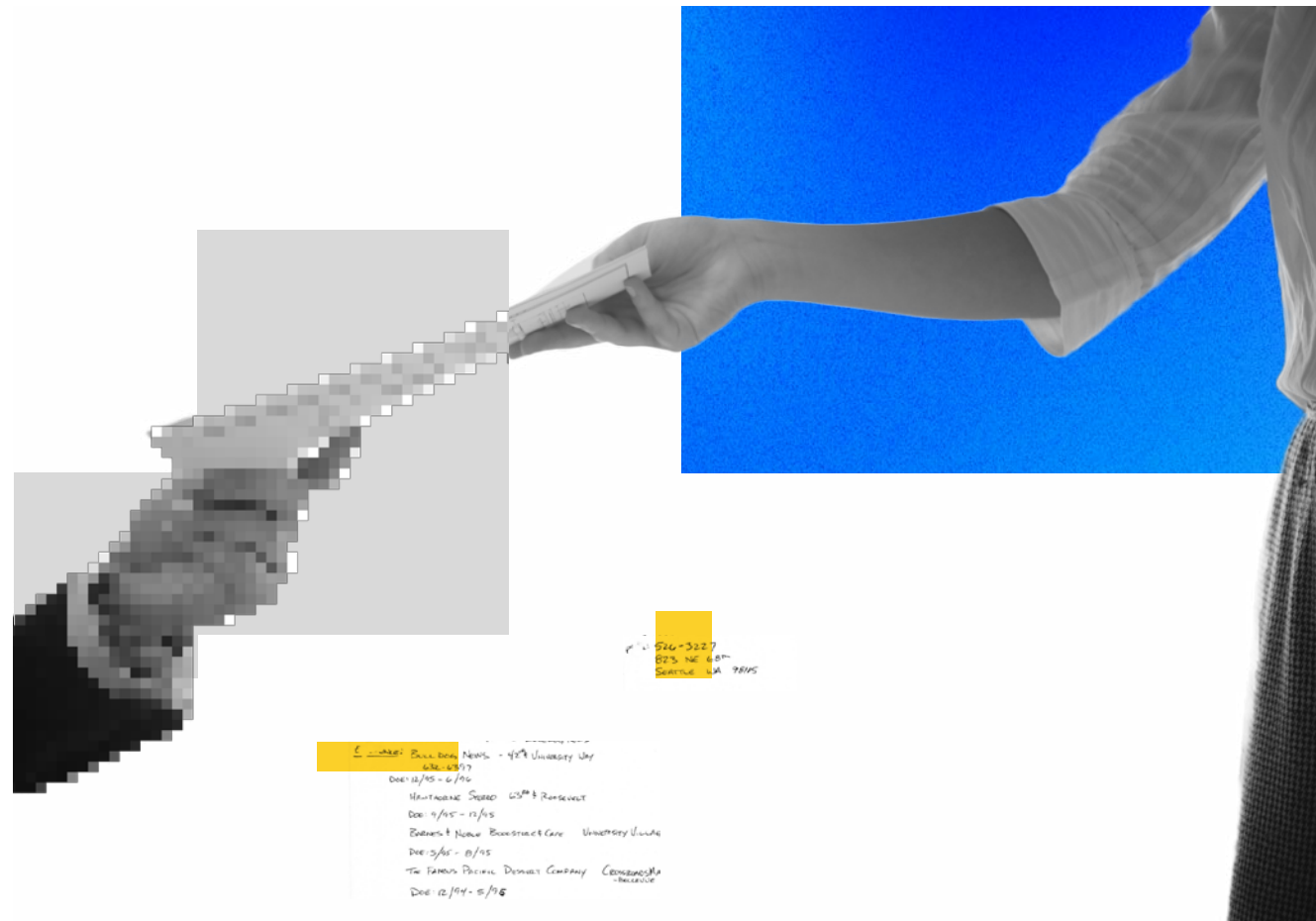
**Mark Hanson.**



**From the Lightcast team, here are some best practices for People Analytics teams to keep in mind before flowing company data into a new AI tool:**

- » Build an internal governance team that works with your technical security team and your legal team to vet new workplace tools, especially those that function on AI. This team should also work closely with Legal to build an internal company policy on AI tools.
- » Every new tool should go through a review with this expert team that ensures the tool has the right security protocols in place to protect company data and employee information and complies with applicable laws. All AI models and tools should have a centralized repository to track what has been built to ensure compliance. You may not have sophisticated security or data teams in-house. If so, consider how you'll get that expertise via consultants or other means. Resist the temptation to treat AI tools as plug-and-play solutions that don't need oversight.

- » Create an internal memo that goes out to all employees asking that they not put company information of any kind into online AI tools that haven't been vetted by the company. Some companies are choosing to block tools like ChatGPT on company computers until they're able to vet the tool thoroughly.



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Doe 12/14 - 12/16



# Lightcast's AI Philosophy

## Good data in, good data out.

AI tools are only as powerful as the data that feeds them, and we're committed to providing the most robust labor market data set available for employers to use. We help companies answer the toughest questions in HR, faster.

## We believe in human-assisted AI.

Lightcast tools are powered by human-assisted AI. We have dedicated teams who use a "human-in-the-loop" strategy for building and improving models. They're involved at every stage of the data curation, enrichment, and delivery process.

## We build transparent tools with explainable AI.

Every user should have access to clear explanations where conclusions and recommendations come from. Unlike many AI tools, we're not a "black box" — we're an open book and we share our sources, methodologies, and approaches.

## We are committed to using skills-based workforce planning tools combined with AI to create a job market that works for everyone.

Our **open skills standards** and explainable approach will allow all the participants in the job ecosystem to make better decisions and connections to improve the world of work.

[Explore Lightcast tools →](#)



# Evaluating AI Vendors

## Evaluating AI-powered Labor Market Data Providers

In addition to tackling security reviews, teams must evaluate whether or not an AI tool can actually help them achieve their business goals. Here's how:

**Be a tough demo customer.** When going through demos for an AI tool come prepared with tough questions and example use cases for the salesperson to demonstrate, ideally using your data. For example, ask them:

- » To show you how their tool could solve the specific problems you need to solve — and don't get swayed by sample scenarios built to impress in a demo.
- » What kind of data set was used to train the AI algorithm, in size and breadth?
- » What process was used to validate the AI results?

- » How do we, as users, validate the results? How do we identify a potentially incorrect result?
- » What kind of resources, both human and technical, will we need to manage the system?

**Test the efficacy of the AI tool with your internal data set,** and see if it meets the same standards you saw in the demo. If, for example, the tool is designed to make candidate matches, try a test using your internal data on hires you have already made. What kind of results do you get?

**Be clear on the problem you want to solve.** Consult with internal teams to determine if a new tool is needed at all, or if the problem could be solved without it.

**Consult with data scientists,** internally or externally, to see if the tool has a sound methodology that could help your team.

**Dig deep into claims made in a demo.** If a tool purports to reduce time-to-hire, and it says it can find higher-quality hires, find out the specifics. Is the time-to-hire they boast about much better than what you already have? How does the tool define a quality hire? Are these quick hires always high quality?



# Building an AI Strategy

## Define the problem you're trying to solve

It may sound obvious, but it's important to clearly define the problem your company faces and what you're trying to solve. When a technology has as much buzz around it as artificial intelligence, the temptation to give it a try (and the fear of missing out) is enormous. And there is no question that the HR teams that adopt AI successfully first will have an edge.

But to be successful, you need to have a specific use case in mind and judge your AI tool against that situation. Ideally, this should also be a use case that is recognized as a critical challenge for your organization. The more important the problem, the more buy-in you will have from both executives and employees in trying an AI tool to solve it.

## Build responsibility in from the start

The ethical questions around AI in general, and its use in talent management in particular, are serious. So are the concerns you'll find among current employees, candidates, and the public. All of your stakeholders need to know that your AI strategy will treat them fairly and with transparency.

If your company does not have an AI responsibility statement, you should consider developing one. (Advice and model statements are available online). You may also need to add language to your job application and onboarding documentation so workers and candidates know what to expect.

In addition, it's a good idea to review your company's mission and value statements while you're developing your strategy. It's important to ensure that how you use AI is consistent with your corporate culture.

## How will you measure success?

Once you've settled on a use case, what metrics will you use to measure success? Set precise targets based on the use case. It also helps to take a holistic view, not only using whatever metrics are provided in the AI tool but other data as well. A range of metrics not only allows you to track progress toward the main goal but also identify any unexpected benefits or drawbacks from the process.

## Keep refining

Like any new technology, artificial intelligence is going to keep improving and advancing. And like any new business process, you probably won't get your AI strategy right the first time. That's okay. The important thing is that HR teams continue to track, refine, and improve the strategy—and your stakeholders should expect that you will be making changes as you go.



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# AI is coming to HR teams — is your company ready?

AI is here to help teams work faster, save time on tedious tasks, and catch issues before they get bigger. But the best AI tools are the ones with robust, diverse data sets managed by humans in conjunction with AI.

“AI can enhance what HR teams are already doing, and make it easier to find people, hire people, and build people’s careers.”

Cara Christopher, Executive Vice President of Marketing at Lightcast.

Learn more about [Lightcast’s unparalleled data set](#) and how our tools use AI to help teams grow skills, hire the right people, and keep employees engaged.



# Access AI-powered labor market tools powered by the most comprehensive data sources available.

Lightcast gives talent management teams the tools and expertise to make intelligent business decisions that help them grow.

- » Build a global talent strategy
- » Benchmark employee compensation packages
- » Find and retain talent
- » Customize career pathways and workforce planning
- » Streamline and automate candidate sourcing

[Explore our tools →](#)





