



# Artificial Intelligence

## The HR Game Changer

### Workforce Intelligence Will Change The Way Companies Recruit, Hire and Develop Talent

By DENNIS W. KOERNER

#### Introduction

Today's technologies that let us capture and analyze data are no less than amazing. In recent years, we have seen many applications of this new science from the advent of self-driving cars to the prediction of consumer behaviors on shopping websites. Artificial intelligence is here, and it is disrupting many business models and creating new ones. Artificial Intelligence can solve many challenges and will become the basis of competition in many fields in the very near future. Human Resources is no exception. Today's HR managers need to understand the impact of this technology and how it will change their world.

The purpose of this article is to show a few examples of how artificial intelligence (AI) might be applied to the recruiting and development efforts of your organization. The goal is to help you transform the way you look at and develop your organization using state of the art AI technology.

#### Finding the Right Person

Let's get started. As we all know, selection of a job candidate is a very complex task. The complexity of course is related to the fact that there are many variables to consider such as:

- What is the job function?
- Will the candidate fit into our company's culture?
- What will motivate them to stay with the company?
- Can I build a future around this person?

To answer these types of questions the interviewer must assemble a wide range of considerations using their own biases and experience. Each person will wear a pair of glasses that lets them see the candidate from their unique perspective.

So now we can see the problem. Lack of data, individual bias and candidate shading of information can easily mislead the selection process.

This is where AI, big data and advanced analytics can help. Big data and analytics guide us by providing a much larger data base with recognition of successful patterns based on historical results.

*How can IBM's Watson computer beat the best player in the world? The answer is easy – pattern recognition.*

#### The AI Success Model

The AI Model process is a straight forward method used to identify key workforce patterns or insights that can be implemented in a number of ways. The model consists of four steps:

1. Measure the Job
2. Benchmark Current Employees
3. Create the AI Model
4. Verify the Fit

**Step 1** – The first step in using AI is to understand what success looks like in your company. This is accomplished by gathering data on key performance metrics related to the specific job. Each company will have its own performance metrics uniquely related to its workforce performance. All performance metrics are to be objective, numeric values.

**Step 2** – Step two gives a combination of tests and or assessments to a sample of the workforce population. A combination of tests has been shown in the literature to be the most effective method for prediction of job performance. Subject areas covered vary depending

on the job but may include attributes such as education, prior experience, behavior, motivators and general mental ability.

**Step 3** – Once we have collected both the key performance metrics and benchmark attributes of our workforce, we can relate them using artificial intelligence methods. AI can tell us what combination of employee attributes contribute to performance and which ones detract.



**Step 4** – Models are generally developed using out of sample data to get a true measure of their performance. Because models are based on real data it is very easy to validate them.

Best of all, AI models learn over time. The more you use the model and the bigger your data set becomes the more your model will improve.

#### The Results

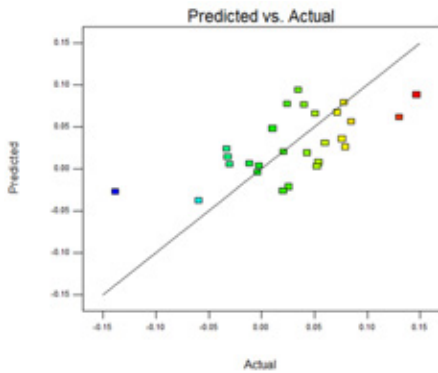
Results of AI models are remarkable to say the least. In the example below, a model was developed and used to predict the annual sales revenue for call center employees. Results of the AI study identified that three key attributes that were important for success:

1. **Goal Orientation** – the more successful employees were action oriented. They like setting and achieving goals.

2. **System Knowledge** – to be successful the call center employees had to understand the complexities of the product line, inventory management, transportation and customer needs.

3. **Creative Problem Solving** – Call center workers deal with problems all day long. Their ability to creatively address and resolve daily challenges is critical to their sales success.

Below is a simple line plot showing the AI predicted rate of sales change for the call center employee and the actual rate of sales change.



It is clear that use of AI models is highly effective in generating predictive workforce insights.

### Conclusion

AI is here and being used today. Over time HR executives will adopt and use the technology to improve their organization results. Subsequently, the power of data driven workforce insights will more directly drive a company's financial performance than ever before.

#### Key Elements of the AI Model



**The Perfect Match** – So why is AI important? At the heart of AI is better informed decisions and better results. AI is great at data analysis but is confined to the limits of its model. People are great at reading the nuances of other people. Put the two together and you have a

more powerful method of operating. AI is the perfect partner for helping your organization make more informed and thus better decisions.



About the Author –  
*Dennis W. Koerner, Ph.D. is President and CEO of ITN, LLC. ITN provides statistical services that helps companies create competitive advantages through better hiring and retention program practices. This is accomplished with the use of artificial intelligence programs that relate employee attribute data to organization performance metrics. For more information, call Dr. Koerner at 901-568-3569 or send an email to [dennis.koerner@itnanalytics.com](mailto:dennis.koerner@itnanalytics.com). You can also learn more about ITN data services at [www.itnanalytics.com](http://www.itnanalytics.com) and ITN applicant tracking software at [www.itnhire.com](http://www.itnhire.com).*

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