



(REVIEW ARTICLE)



## Choosing the best artificial intelligence tools for human resource management

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### Abstract

The article presents a comprehensive review and comparative analysis of modern artificial intelligence (AI)-based platforms used in human resource (HR) management. Tools such as HireVue, Pymetrics, Eightfold.ai, Workday, and Textio are reviewed. Their functionality, usability, integration with existing systems, data security, cost, and user support are discussed. The article provides practical recommendations for selecting optimal AI solutions, taking into account the specific needs and priorities of different organizations. It also explores the prospective directions of AI development in HR and the ethical aspects of their implementation.

**Keywords:** Artificial intelligence in HR; Human resource management; Recruiting automation; Integrating AI into HR; AI platforms for HR;

## 1. Introduction

### 1.1. Relevance of the topic

Artificial Intelligence (AI) is actively penetrating all business areas, including human resource (HR) management. The use of AI in HR can automate routine tasks, improve analytical abilities, and increase the efficiency of HR departments. This process has evolved from simple automated systems to sophisticated analytical solutions that can predict employee behavior and optimize employee development.

The purpose of this paper is to provide an overview of the best AI tools for HR and analyze them comparatively.

## 2. Literature Review

Current research demonstrates that AI has the potential to improve HR processes significantly. Major areas of research include recruiting automation, performance analytics, and employee training. These studies show that the proper use of AI can reduce bias, increase the objectivity of decisions, and improve the overall efficiency of HR departments.

### 2.1. Criteria for selecting AI tools for HR

To evaluate AI tools in HR, it's important to consider a few key criteria:

- Functionality and capabilities How well the tool meet the needs of the organization.
- User interface and usability - ease and intuitiveness in use.
- Integration with existing HR systems - the ability to seamlessly integrate with existing systems.
- Data security and privacy - how well the tool protects employee data and meets regulatory requirements.
- Cost and ROI - the economic viability of using the tool.

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- Support and training - availability of quality support and user training programs.
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### 3. A review of the best AI platforms and tools for HR

#### 3.1. HireVue

- Description: a platform for video interviews and candidate assessment.
- Key features: automate interviews and analyze candidate responses based on AI.
- Advantages: reduced time to hire, increased objectivity of assessment.
- Disadvantages: possible bias of algorithms, need for user training.

##### 3.1.1. Recommendations for use

- System implementation: start by integrating HireVue with your current HR systems for seamless data exchange.
- Team training: provide detailed training to HR professionals on how to use the platform so they can effectively conduct and analyze video interviews.
- Ethics and privacy: ensure that all candidates are informed about the assessment methods and the data that will be collected. Keep processes transparent.
- Data analysis: analyze interview data regularly to identify any potential biases in the algorithms and make adjustments.

#### 3.2. Pymetrics

- Description: a platform for assessing the cognitive and emotional qualities of candidates.
- Key features: neuropsychological games, analyzing candidate potential data.
- Advantages: objective assessment, reduction of bias.
- Disadvantages: limited scope, need to collect large amounts of data.

##### 3.2.1. Recommendations for use

- Assessment and customization: customize the platform to assess the cognitive and emotional qualities that are most important to your organization.
- Integration with recruiting processes: incorporate Pymetrics into the early stages of recruiting to pre-screen candidates based on neuropsychological games.
- Feedback: provide candidates with feedback based on their performance, increasing their engagement and understanding of the process.
- Performance monitoring: regularly monitor how Pymetrics results correlate with employee performance and adjust evaluation criteria as needed.

#### 3.3. Eightfold.ai

- Description: talent management platform.
- Key capabilities: resume analysis, predictive analytics, career trajectory planning.
- Advantages: an integrated approach to talent management, high accuracy of predictions.
- Disadvantages: high cost, complexity of integration.

##### 3.3.1. Recommendations for use

- Comprehensive integration: integrate Eightfold.ai with your talent management and career planning systems.
- Predictive analytics: utilize predictive analytics capabilities to identify potential stars among employees and plan their career development.
- Talent management: develop talent management strategies based on data from Eightfold.ai to support and develop key employee skills.
- Performance measurement: assess platform performance by regularly analyzing turnover and productivity metrics.

#### 3.4. Workday

- Description: a comprehensive HRM system with AI capabilities.
- Main capabilities: recruiting, performance management, data analytics.

- Advantages: wide functionality, high reliability.
- Disadvantages: high cost, need for significant resources for implementation.

### 3.4.1. Recommendations for use

- Integrated approach: use Workday to manage all aspects of HR, including recruiting, training, performance management, and data analytics.
- Customization and training: provide detailed training for HR professionals on all Workday functionalities.
- Data security: make sure all employee data is protected with multi-layered security measures.
- Regular updates: monitor and implement platform updates to ensure you're always utilizing the latest Workday features.

### 3.5. Textio

- Description: a tool for writing effective and inclusive job ads.
- Main features: text analysis, recommendations for improvement.
- Advantages: reduced bias in texts, increased response to job postings.
- Disadvantages: limited functionality beyond text creation, need to integrate with other systems.

### 3.5.1. Recommendations for use

- Create job postings: use Textio to write inclusive and effective job postings that attract diverse candidates.
- Analyze texts: regularly analyze job postings and make improvements based on Textio's recommendations.
- Feedback: enable candidates to give feedback on job postings to further improve texts.
- Integration with HR systems: incorporate Textio into your overall recruiting process to automatically improve all texts related to hiring.

### 3.6. Tool benchmarking

**Table 1** Tool benchmarking

Tool	Functionality	Ease of use	Integration	Data security	Cost	Support and training
HireVue	High	Medium	Good	High	Medium	Good
Pymetrics	Average	High A	Average	High	Average	Good
Eightfold.ai	High	Medium	High	High	High	Good
Workday	Very High	Medium	High	Very High	Very High	Excellent
Textio	Average	High	Average	High	Average	Average

The analysis shows that each platform has its own strengths and weaknesses. For example, Workday offers the widest functionality but requires significant investment. Textio is great at creating inclusive texts but has limited functionality. HireVue and Pymetrics help reduce recruiting bias but require significant resources for customization and training.

## 4. Conclusions and recommendations

AI tools for HR can significantly improve the efficiency and objectivity of HR processes. It's important to choose tools that fit the needs and priorities of the organization while considering ethical and safety considerations.

Three general recommendations when implementing AI in HR processes are as follows

- Ethics and privacy: implement AI tools with ethical standards and respect for employee privacy in mind.
- Ongoing training: provide ongoing training and development for HR professionals to effectively utilize AI solutions.
- Monitoring and Adjustment: regularly evaluate the effectiveness of AI tools and adjust processes based on the findings.

Further research is needed to improve AI algorithms, minimize bias, and improve the interaction of AI systems with users. Prospects for AI technologies in HR include deeper personalization and integration with other business processes.

The author encourages HR managers to be at the forefront of these changes, actively follow the innovations in AI, and implement advanced solutions into their organizations' HR processes. This will not only improve efficiency and fairness but also create a competitive advantage in the labor market. Continuous learning and adapting to new technologies will help organizations stay relevant and successful in a rapidly changing world.

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## References

- [1] Knocker, M., & Sena, W. (2019). Big data and human resource management: the rise of talent analytics. *Social Science*, 8(10), 273.
- [2] Johnson, B. k. M., Coggburn, J. D., & Lawrence, J. (2022). artificial intelligence and public human resource management: issues for research and practice.
- [3] Singh, A., & Chouhan, T. (2023). Artificial intelligence in human resource management: the role of emotional and social intelligence and future job skills.
- [4] Fleming, M. (2020). AI is changing the workplace. And leaders need to adapt. *Harvard Business Review*.
- [5] Enholm, E. M. et al. (2022). Artificial intelligence and business value: a literature review.
- [6] Bankins, S. (2021). Ethical use of artificial intelligence in human resource management: a decision-making framework.
- [7] Fritts, M. and Cabrera, F. (2021). AI-enabled recruitment algorithms and the problem of dehumanization.
- [8] Genol, N., & Feinzig, S. (2018). The business case for using artificial intelligence in human resources: analytical insights and tips for getting started. IBM Workforce Institute.