

AI-Driven Synergies in HR Analytics: Integrating Workday, Box, and ChatGPT Enterprise

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ABSTRACT

Human Resources (HR) analytics provides crucial insights into an organization's workforce, facilitating the evaluation of HR performance and guiding strategic decisions regarding payroll, benefits, recruitment, retention and more. This analytical approach, also known as workforce analytics, talent analytics or people analytics, assesses the impact of HR practices on overall organizational performance. Despite the growing integration of technology into business operations, AI solutions are predominantly focused on profit-generating departments, leaving significant potential for AI applications in HR largely untapped. Many HR leaders recognize the urgent need to harness AI within HR functions. This paper explores the potential of utilizing Advanced Reports in Workday, ChatGPT Enterprise, and BOX to create a sophisticated AI chatbot designed for HR teams. Such a chatbot would streamline the extraction of essential HR metrics, thereby enhancing the efficiency and effectiveness of HR operations. By leveraging these integrated technologies, organizations can employ AI-generated analytics to make real-time, evidence-based decisions, ultimately improving HR performance and organizational outcomes.

Keywords: Artificial Integration, HR Analytics, BOX, Advanced Reports, Workday, ChatGPT Enterprise, AI Chatbot, HR Metrics, Workforce Analytics, People Analytics, Talent Analytics.

1. Introduction

Human Resources (HR) teams play a critical role in shaping the success of an organization's strategic plans and objectives. As human capital constitutes one of the most significant expenses and essential contributors to an organization's performance, it is imperative for businesses to evaluate HR functions against specific metrics to ensure optimal efficiency and effectiveness^{3-5,7}. HR analytics has emerged as a key tool that enables HR professionals to make data-driven decisions, which in turn have a profound impact on an organization's overall success³⁻⁶. Notably, over 70% of executives now regard analytics as a core priority within their organizations¹. The HR analytics market is anticipated to expand by 90%, reaching \$3.6 billion within the next three years, underscoring the growing importance of this field^{1,6}. Organizations that fail to leverage HR

analytics risk falling behind as competitors increasingly invest in digitization⁶.

HR metrics serve as a crucial mechanism for tracking and evaluating the performance of HR operations³. These metrics range from assessing the cost of hiring new employees to evaluating the effectiveness of diversity and inclusion initiatives, providing a quantifiable and objective measure of HR activities. Common HR metrics include employee count, employee demographics, turnover rate, time to fill positions, cost per hire and absenteeism rate, among others²⁻⁷.

The integration of Artificial Intelligence (AI) with HR analytics significantly enhances the predictive power of these metrics, enabling HR leaders to anticipate workforce challenges and seize talent opportunities^{1,2,6,8}. Despite the

recognized potential of AI and people analytics, there remains a substantial untapped opportunity within many organizations¹. Research by Visier and the People Intelligence Alliance reveals that approximately 3,000 North American companies lack robust people analytics capabilities, resulting in an estimated \$600 million in unrealized economic value¹. However, recent advancements have made it increasingly feasible for HR departments to deploy sophisticated AI and automation tools at scale, particularly within larger organizations². As of early 2022, 42% of firms with at least 5,000 employees reported utilizing AI for HR tasks¹.

AI-driven HR analytics transforms decision-making by offering predictive insights that surpass traditional intuition-based approaches^{1,2}. One of the most promising applications of AI in HR is the development of AI-powered chatbots^{1,2,8}, which can deliver personalized employee experiences by leveraging both individual interactions and historical data. As AI technology continues to evolve, it is poised to become an even more powerful and integral tool for HR leaders dedicated to building world-class organizations.

8 benefits of AI in HR

1. Become a tactical and strategic asset
2. Reduce human bias
3. Improve relationships between employees
4. Improve efficiency and insight in candidate assessment
5. Supercharge strategic decision-making based on predictive data
6. Prioritize your time and resources
7. Automate repetitive tasks
8. Remain open to new ideas and trends

Figure 1: Benefits of using Artificial Intelligence (AI) in HR¹.

2. Problem Statement

Traditional HR management has often relied on trends, biases and temporary solutions, leading to inconsistencies between what HR professionals perceive as effective and what data substantiates as impactful. This discrepancy underscores the need for a shift toward evidence-based HR, where decisions are informed by a combination of internal data, empirical research, expert judgment, practical experience and stakeholder values^{4,5}. Such an approach allows HR professionals to ground their decisions in verifiable facts and evidence, rather than intuition alone.

The incorporation of analytics into HR operations has significantly streamlined tasks for HR professionals, enabling companies to gain strategic insights and accurately model how workforce trends influence revenue and profitability^{4,5}. As AI technologies continue to evolve and more companies invest in them, their adoption in the corporate sector is rapidly increasing⁸. According to a McKinsey Research study, 58% of surveyed businesses reported utilizing AI for at least one function within their operations^{2,8}.

A critical area where AI can profoundly impact is HR analytics, facilitating more effective management of human resources and offering deeper insights into employee needs and preferences^{1,8}. Despite this potential, many organizations still

lack the necessary AI tools to enhance HR analytics for improved planning and decision-making. Furthermore, companies often prioritize AI investments in revenue-generating departments, overlooking the benefits of AI in HR functions. Additionally, exporting employee data from Human Capital Management (HCM) systems to conduct analytics with AI-assisted tools presents challenges related to data security, tool costs, and integration complexities.

To address these issues, it is prudent for organizations to leverage their existing platforms—such as Workday HCM, Document Management systems like Box, and ChatGPT Enterprise—to develop solutions that empower HR teams with critical metrics and insights into organizational health. An interactive AI-driven chatbot, capable of accessing and analyzing data from the HCM system to respond to HR queries, would offer an ideal solution, enabling organizations to harness the full potential of their existing resources for enhanced HR analytics.

3. Solution

3.1. Workday Reporting

In Workday, data is meticulously structured within business objects, where each object comprises fields and instances, analogous to the rows and columns in a relational database schema¹⁶. In this paradigm, individual rows correspond to instances, encapsulating discrete data entities, while columns represent the attributes or fields that define specific characteristics of these instances¹⁶. The creation of a report in Workday necessitates the selection of a data source, which must contain instances of a business object serving as the primary business object that anchors the report¹⁵.

Among the diverse array of report types that Workday provides, the advanced report is notably predominant when the goal is to extract granular, unprocessed data from the system¹⁵. This report type enables the inclusion of fields from both the primary business object and related business objects, offering a sophisticated suite of design functionalities, including but not limited to complex filtering mechanisms, hierarchical sub-filtering, dynamic prompting and controlled sharing capabilities¹⁵.

Furthermore, advanced reports in Workday can be configured to function as web services, thereby facilitating the externalization of data from the HCM system using report URLs, which are secured by authentication protocols¹⁴. Workday Web Services thus provide a conduit for accessing report data via URLs, which can be seamlessly integrated into external reporting frameworks or advanced analytics tools¹⁴.

For organizations aiming to harness Workday's capabilities for generating comprehensive HR metrics, the advanced reports feature offers a robust mechanism to extract raw data from the HCM system—encompassing various domains such as employee job data, recruitment metrics, performance evaluations and training records.

This extracted data can be exposed through web services and subsequently stored in a Box folder, which acts as a secure repository. This repository can then serve as the data source for AI-powered analytics platforms, such as a GPT model developed using ChatGPT Enterprise, thereby enabling the generation of nuanced and actionable insights tailored to the needs of the HR function.

3.2. Box.com - Document Management

Box is a sophisticated cloud-based content management platform that facilitates the organization, storage and retrieval of digital assets within an intricate online folder system¹³. This system is characterized by its comprehensive array of features, including advanced collaboration tools, robust security protocols and in-depth analytics capabilities¹³. Among its most critical functionalities are Metadata and Custom Tags, which play a pivotal role in enforcing data uniformity, minimizing the likelihood of errors, accelerating the data entry process, and enabling highly nuanced search operations¹⁰⁻¹². These features collectively ensure that the data ecosystem within Box is not only meticulously organized but also readily accessible, thereby significantly enhancing the efficiency and effectiveness of data management practices¹⁰⁻¹².

The strategic integration of Box, particularly the folders housing raw data extracted from the Human Capital Management (HCM) system, with the capabilities of ChatGPT Enterprise, introduces a paradigm shift in the realm of HR analytics. This integration holds the potential to develop an advanced AI-driven chatbot, specifically designed to empower HR teams by providing them with seamless access to critical metrics essential for monitoring and evaluating operational performance. The AI chatbot, utilizing data sourced from Box, could facilitate highly responsive, natural language-based interactions, allowing HR professionals to inquire about specific HR metrics or automatically generate detailed reports on a spectrum of key performance indicators for presentation to senior management.

This integrated solution would drastically reduce the time and resources traditionally required by HR teams to generate and analyze metrics, transforming what was once a labor-intensive process into a streamlined, automated workflow. The AI chatbot's sophisticated natural language processing capabilities would further simplify the extraction of relevant data, enabling HR professionals to bypass the need for manual navigation through multiple systems and disparate data sources. Consequently, this integration not only optimizes the operational efficiency of the HR team but also significantly enhances organizational productivity by enabling HR professionals to focus on high-value strategic initiatives. These initiatives include the formulation of data-driven roadmaps and the development of actionable plans based on the deep insights gleaned from the AI-assisted HR analytics and metrics.

3.3. Chat GPT Enterprise

ChatGPT Enterprise represents a sophisticated evolution within OpenAI's portfolio, augmenting the capabilities of its predecessors, the free and Plus editions, by incorporating a suite of advanced features meticulously engineered to meet the intricate demands of enterprise environments¹⁷. This edition distinguishes itself through its robust enterprise-grade security protocols, ensuring that organizational data is protected with the highest standards of privacy and compliance¹⁷. Additionally, it introduces a comprehensive suite of management functionalities tailored for enterprise administrators, including an admin console designed for bulk member management, seamless Single Sign-On (SSO) integration, and domain verification mechanisms that further bolster organizational control and governance¹⁷.

The platform's enhanced performance metrics and improved availability are complemented by a suite of data analytics and

development tools, enabling enterprises to derive actionable insights and build upon their data-driven strategies¹⁷. Moreover, ChatGPT Enterprise is optimized to handle more complex, nuanced and extended prompts, thereby facilitating the creation of reusable templates and workflows that streamline and automate repetitive tasks across vast organizational landscapes.

In the context of large-scale deployments, ChatGPT Enterprise offers a meticulously designed analytics dashboard that provides deep insights into usage patterns, enabling organizations to optimize their AI deployment strategies effectively¹⁷. This solution is inherently flexible, allowing for the development of highly customized AI applications through the integration with existing enterprise systems, such as Box, via API connections. Developers are empowered to create bespoke Generative Pre-trained Transformers (GPTs), specifying detailed configurations such as Name, Description, Instructions, Actions and Schema, thereby tailoring the AI's functionality to meet the precise operational needs of the enterprise.

This extensibility is particularly potent when applied to the development of AI-driven chatbots designed to support HR analytics and metrics. By leveraging the seamless integration capabilities of ChatGPT Enterprise, organizations can harness the power of AI to automate and enhance HR operations, enabling real-time data processing and decision-making that is informed by comprehensive analytics. This integration not only elevates the efficiency and productivity of HR teams but also embeds a deeper layer of intelligence within the enterprise's operational fabric, driving strategic outcomes through the application of advanced, evidence-based insights.

3.4. Process Flow and Integration of Box with ChatGPT Enterprise

The process commences with the generation of advanced reports within Workday, serving as a mechanism to extract raw datasets encompassing various dimensions of the organization's workforce, including but not limited to job classifications, compensation structures, payroll details, performance evaluations, absence records and recruitment metrics derived from the Human Capital Management (HCM) system. Given the fact that these reports are exposed as a web service within Workday, two principal methodologies exist for transferring the report outputs to a Box folder, specifically designated as "Workday HCM Data".

The first methodology involves leveraging the Enterprise Interface Builder (EIB) to transmit the report outputs to a Secure File Transfer Protocol (SFTP) location. From this intermediary location, the data can be either manually transferred or programmatically pushed into the Box folder via an automated integration pipeline. The alternative approach entails the construction of an integration that establishes a connection to Workday through the Integration System User (ISU), enabling the extraction of data via the report's URL and its subsequent deposition into the Box folder.

Subsequently, the technical team is positioned to architect a novel Generative Pre-trained Transformer (GPT) instance, christened "HR Analytics and Metrics," within the ChatGPT Enterprise ecosystem. This GPT instance would be meticulously configured to establish a seamless connection with the "Workday HCM Data" folder hosted on Box, thereby laying the foundation for an AI-enhanced chatbot tailored specifically for the HR team.

This chatbot, by virtue of its integration with the Box folder, would empower the HR team to articulate complex queries pertaining to the extracted Workday data and receive precise analytics and metrics in response. The direct linkage between the chatbot and the Box-stored raw data files ensures that the system can deliver expedited and accurate answers, thereby optimizing HR operations through enhanced data-driven insights.

The figure below illustrates the intricate process and data workflow, detailing the transition of data from Workday to Box, followed by its integration with ChatGPT Enterprise, ultimately enabling the HR team to generate relevant and necessary HR metrics. This workflow encapsulates the various stages of data extraction, transmission, storage, and AI-driven analysis, providing a comprehensive overview of how raw data is transformed into actionable insights for the HR department.

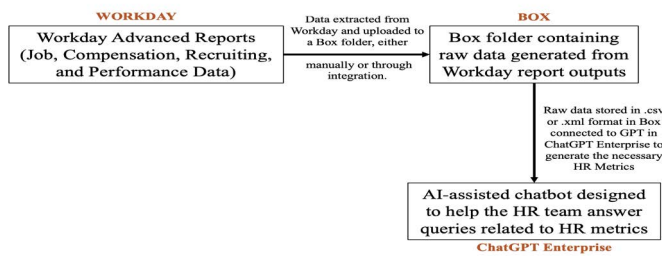


Figure 2: Process and Data Workflow from Workday to Box and ChatGPT Enterprise.

The following figures present the configuration of advanced reports within the Workday HCM system and further illustrate the detailed setup of the GPT, along with the Box folders and their respective configurations, to effectively integrate these systems.

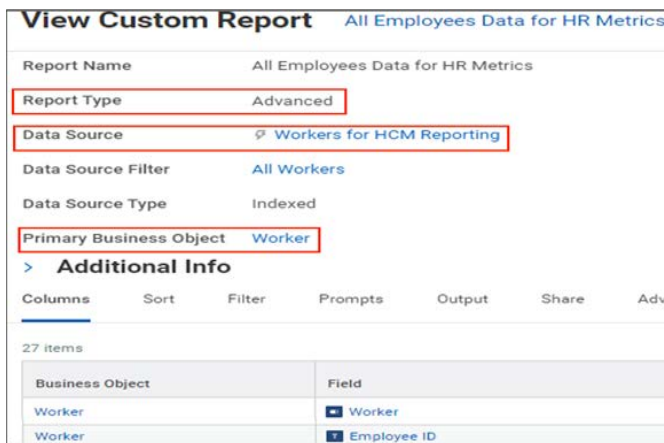


Figure 3: Configuration of the advanced report to pull all employees data from Workday HCM System.

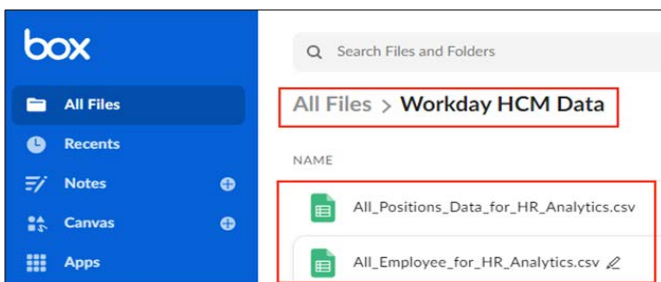


Figure 4: Box folder 'Workday HCM Data' containing raw data from HCM System.

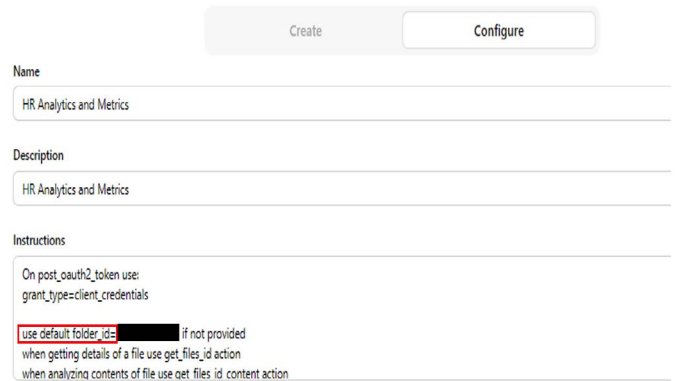


Figure 5: GPT 'HR Analytics and Metrics' "Instructions" configuration with a pointer to the folder in Box.



Figure 6: 'Action' Configuration of the GPT for connection to Box.

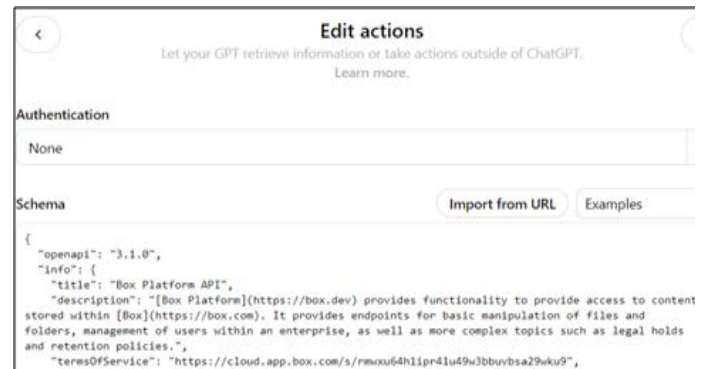


Figure 7: Schema configuration for connection to Box.

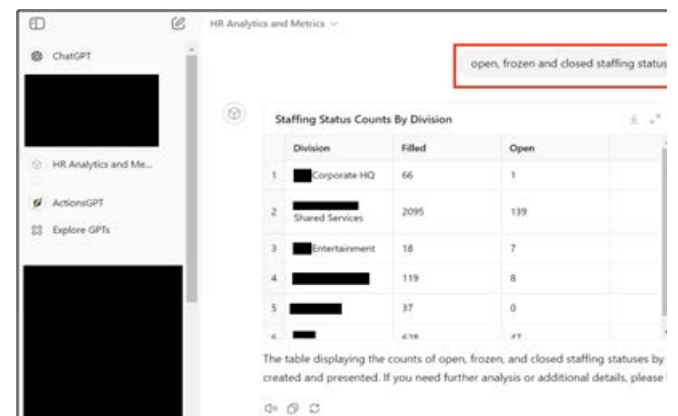


Figure 8: An example of HR query and corresponding response from the GPT.

The integration of Workday HCM, Box, and ChatGPT Enterprise offers a robust and efficient solution for the management and generation of HR metrics, significantly enhancing operational efficiency and streamlining workflow processes within HR teams.

4. Impact

The integration of raw data flows between the Workday HCM system, Box and ChatGPT Enterprise to architect a bespoke AI-driven chatbot exerts a profound and multifaceted

impact on the HR function, rendering it an indispensable asset for the senior management cadre within the organization. This sophisticated solution empowers the HR team to seamlessly generate critical metrics through the utilization of natural language queries, which are intricately processed based on raw data systematically extracted from the HCM system. Such metrics serve as a pivotal resource for HR management, enabling more informed executive decision-making, enhancing employee satisfaction indices and facilitating the granular tracking of workforce productivity, the identification of latent training deficiencies and the comprehensive evaluation of a myriad of workplace functions.

Moreover, this custom AI solution significantly mitigates the temporal and cognitive burdens traditionally associated with the HR team's navigation through the HCM system to extract raw datasets and manually synthesize metrics using Excel or other conventional analytics tools. As ChatGPT Enterprise continuously refines its understanding of HR-specific queries through iterative interactions, its capability to deliver increasingly precise and contextually relevant search results is exponentially augmented. This AI-enhanced tool not only optimizes the HR metrics generation process but also substantially alleviates the support team's workload by endowing HR professionals with the autonomy to independently generate these metrics. As a result, the integration elevates operational efficiency within the HR domain, enabling the team to shift its focus from labor-intensive administrative tasks to more strategic, value-added initiatives, thus fostering a paradigm shift in HR operational dynamics.

5. Conclusion

- **Advanced Integration for HR Analytics:** The integration of Workday HCM, Box, and ChatGPT Enterprise represents a sophisticated and highly effective solution for HR analytics. This advanced architecture significantly improves the ability to extract, manage, and analyze critical HR data, transforming how HR teams operate and strategize.
- **Automation and Efficiency:** By automating the extraction and generation of HR metrics, the integration reduces the time and resources typically required for these processes. This automation leads to more accurate and timely insights, which are crucial for data-driven decision-making and strategic planning.
- **Adaptive Learning and Enhanced Accuracy:** The continuous learning capabilities of ChatGPT Enterprise ensure that the AI system becomes increasingly adept at understanding and responding to HR-specific queries. This adaptive learning improves the precision and relevance of the information provided, empowering HR professionals to independently access and analyze key metrics.
- **Strategic Resource Allocation:** The integration frees HR teams from manual, repetitive tasks, allowing them to focus on higher-value strategic initiatives. This shift enhances the overall efficiency of HR operations and enables a more agile and responsive approach to managing workforce-related challenges.
- **Long-Term Strategic Impact:** The integration of AI into HR functions not only optimizes current operations but also positions the organization to achieve long-term strategic goals. By embedding AI into HR analytics, the organization ensures that HR contributes effectively to the broader

objectives of performance improvement and sustainable growth.

The integration of Workday HCM, Box, and ChatGPT Enterprise marks a significant advancement in HR analytics. It streamlines operations, enhances data-driven decision-making, and positions HR as a key driver of organizational success. This solution not only optimizes current HR functions but also supports long-term strategic goals, ensuring sustained growth and efficiency.

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