

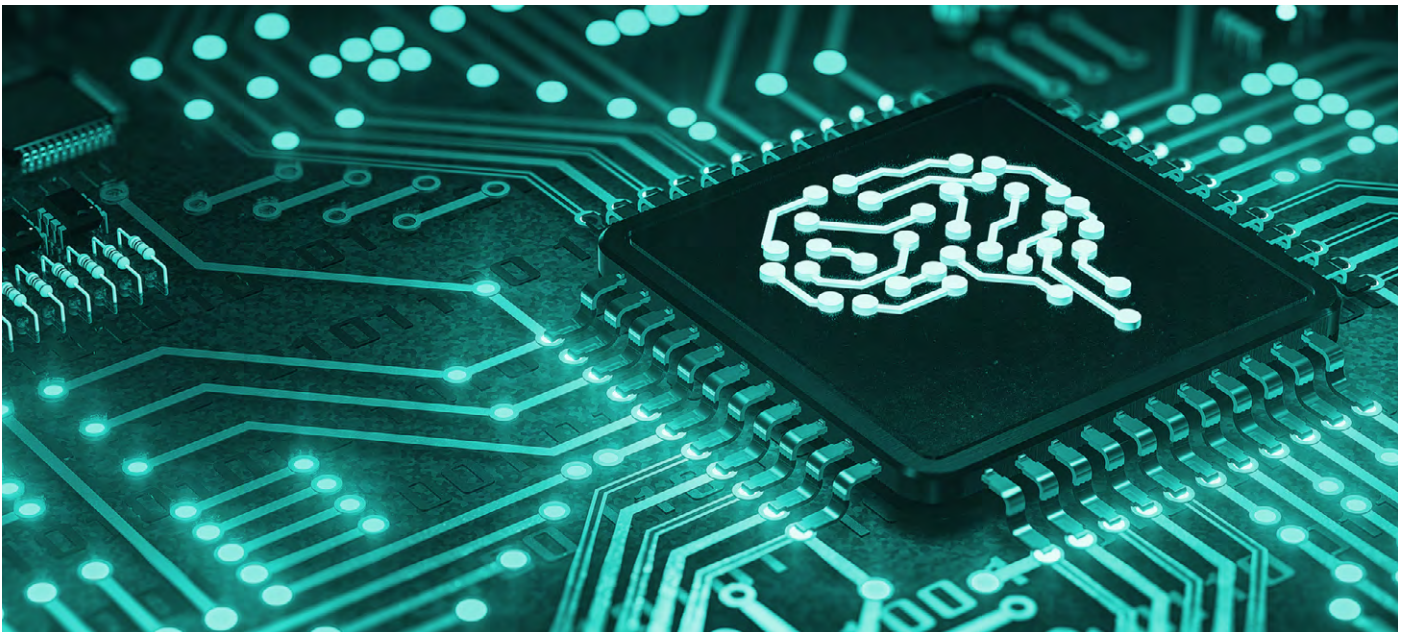
**Deloitte.**

**HR intelligent assistants**  
**Elevating the employee**  
**experience**



**MAKING AN  
IMPACT THAT  
MATTERS**  
*since 1845*

# Introduction



The digital transformation is paving the way for the next generation workforce with the latter requiring a new set of tools to succeed and thrive. HR intelligent assistants are the leading tools for that goal, as they accommodate the changing way we work and collaborate. HR intelligent assistants are innovations in automation and cognitive technology that render working lives easier by allowing technologies to handle a large portion of employees' day-to-day administrative responsibilities, leaving HR and employees to focus on strategic, innovative, value-adding work such as leadership development and succession planning, which are more impactful to the business's growth.

This thought leadership discusses the latest artificial intelligence trends, both globally and in the Middle East, and introduces HR intelligent assistants along with their available services and main benefits. Furthermore, it explores the lessons learned by the market leaders and the challenges they faced while implementing HR intelligent assistants with their clients. Finally, it will highlight the key enablers that will ensure the readiness of clients for the implementation of HR intelligent assistants.

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# Global and Middle East artificial intelligence trends

## 1. Global trends

Organizations across industries are adopting and investing in artificial intelligence (AI) with “37 percent of organizations having deployed AI solutions—up 270 percent from four years ago”.<sup>1</sup> “Analysts forecast global AI spending will more than double over the next three years, topping US\$ 79 billion by 2022”.<sup>2</sup> In addition, AI is estimated to contribute up to \$15.7 trillion to the global economy by 2030.<sup>3</sup>

Research among 8,370 global HR leaders, hiring managers and employees conducted by Oracle and Future Workplace found that 50 percent of workers already use some form of AI at work, up from 32 percent in 2018. Gartner predicts that by 2021, 25 percent of workers will use a HR intelligent assistant daily.

The development of strong AI capabilities is regarded by organizations around the globe as imperative to staying competitive. Leaders acknowledge more and more that AI is transforming their businesses and industries, and driving the digital transformation in their organizations; it is changing the nature of work, jobs and teams. This is substantially affecting their processes, their decision making and the required skillset. It is especially important for AI to be integrated into teams, because teams are the fundamental unit in which most work is accomplished in today's organizations.<sup>4</sup>

## 2. Middle East trends

The Middle East is adapting to the rise of a young tech-savvy workforce with a new digital work environment. Governments within the Middle East have taken a strategic shift towards digitalization to build tech-savvy nations. This has created a demand for the creation of jobs requiring a specific set of competencies across the region. Therefore, there is a need to invest in redesigning jobs, reskilling and upskilling the workforce in order to bridge the skill gap and prepare for the future in alignment with the respective national visions across the region.

Having made an early start, the Middle East region is positioned to become a key player in AI technology. The UAE and KSA are the leading visionary countries in the Middle East with their objectives to boost government performance and increase AI adoption across various sectors.<sup>4</sup>

Assigning large budgets for the speedy implementation of AI, both the UAE and Saudi Arabia have been placed on the list of top 60 countries in the Global Innovation Index (GII). The UAE unveiled a strategy to implement AI in the fields of education, transport, space, health and renewable energy announcing a US\$ 270 million Dubai Future Endowment Fund. Additionally, the UAE became the first government globally to appoint a minister exclusively for the field of AI. The UAE is also planning to introduce autonomous vehicles and robot cops.

The above trends are merely some of the implications of a truly global and interconnected work environment both on a large and narrow regional scale. The nature of jobs and work itself is changing with the introduction of robotics and cognitive technology creating a world where employees will work and collaborate with AI.<sup>4</sup>

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# HR intelligent assistants

## 1. Overview


HR intelligent assistants are smart digital technologies that allow organizations to enhance efficiency within their HR operations while elevating the employee experience. These are cognitive technological tools that increase the range of services that the HR department can provide in an efficient and reliable manner, thus freeing HR personnel to focus on pressing matters. A more productive and valuable HR department is the basis of a successful and prosperous business organization. The resulting workspace is characterized by greater productivity, efficiency, reliability and ultimately a more meaningful employee experience.<sup>5</sup>

## 2. Available Services

HR intelligent assistants vary in types, levels of sophistication, range of services, levels of impact and ease of application, among others. They provide a wide range of services including the following:


- **Smart interaction with employees** - questioning and replying to employees through voice channels and/or texts in their preferred language; interpreting the user's intent in order to answer their needs and requests then providing responses based on the specific context.<sup>5</sup>
- **Personal assistantship** - helping employees organize their daily routine; consolidating, simplifying and automating daily repetitive tasks, predicting patterns, understanding particular employees' repetitive tasks and evolving accordingly, quickly and reliably handling emails, calendar invites, calendar events, files, and listing tasks that need the employee's attention.<sup>6</sup>
- **Talent acquisition** - facilitating the recruitment process by recommending candidates, scheduling interviews, comparing insights and statistics of candidates, thus helping make recruitment decisions.<sup>7</sup>
- **Onboarding** - addressing newcomers' questions, providing easily accessible onboarding steps, thus making them feel welcome and integrated in the workforce as quickly as possible. The most common service provided is the checklist of documents, activities, training and other items that are handled by the new recruits, with a periodical reminder of pending tasks.
- **Learning and development** - offering curated and adaptive, personalized learning tailored to individual employee needs accompanied by reminders, follow-ups and feedback to improve the employee learning experience.
- **Personalization** - providing access to personalized dashboards to showcase and access all HR resources and services.
- **Data analysis** - compiling statistics for higher executives and analysis of key HR metrics, such as retention rate, insight on workforce morale and sentiments, employee turnover, headcount, payroll summary, etc.<sup>6</sup>
- **Around-the-clock support** - providing 24/7 support to employees, thus allowing employees to reach out to their intelligent assistants at any time during the day and/or night, for a faster and more efficient service.

HR intelligent assistants provide a wide range of benefits that elevate employee satisfaction and reduce employee confusion and frustration relating to HR services. The services provided by one of the market leaders in HR intelligent assistants have been proven to lead to the following benefits:

99%   
increase in productivity

50%   
less time spent by employees on completing administrative tasks and therefore dedicating most of their time to their core responsibilities

33%   
reduction in calls to the HR department has been witnessed in retail companies that introduced HR intelligent assistants

75%   
less time to resolve cases related to workplace processes<sup>8</sup>

Such benefits can drive what Deloitte calls the Simply Irresistible Organization, a model that highlights five key strategies to improve employee engagement: supportive management, a positive work environment, meaningful work, growth opportunities and trust in leadership.

# Lessons learned

## 1. Market leaders

The intelligent assistants market is rapidly evolving. It has several leaders that continuously launch innovative products that challenge the as-is state of the market. Below are some of the market leaders and their key features:

- **Amelia**, which was created by IPsoft, is known as the 'world's most sophisticated' assistant and leverages natural language understanding (NLU), rather than processing (NLP) to understand different contexts and real meanings behind sentences. The virtual assistant continuously learns, which enables Amelia's clients to unlock a 35 percent return on investment, versus the 6 percent on typical AI investments. As well as holding natural conversations and providing personalized services, Amelia will also participate in conversation and listen in on topics she may not have had the answers to, to learn and build an understanding of how to act the next time she is faced with the same interaction.<sup>9,10</sup>
- **IBM Watson** provides digital services using a machine learning system to leverage data as opposed to rules. The tool will search for answers to questions posed through a list of answers and may look through unstructured data efficiently (such as Google entries) to provide users with an answer. It will then provide the answer with the highest confident score. IBM Watson may be used to improve customer and employee services as well as act as an AI assistant in risk and compliance and IT operations.<sup>11</sup>

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- **The Oracle Digital Assistant** provides a centralized service which uses natural dialogue to retrieve and provide users with information. The tool conducts a "digital scavenger hunt" for data to provide the correct information, follow up on approvals and review employee information. The natural language processing capabilities allow the tool to understand complex sentences and even misspelled words to ensure the correct information is retrieved.<sup>12,13</sup>
- **LivingActor** is a simple and practical platform that connects users to the services of many service providers through a chatbot. The chatbot consists of a customized avatar that interprets voices with an embedded AI that allows for a rich and continuously updating database. The solution also provides analytical data to managers. It is compatible with most existing information systems while still being upgradable and scalable and ensuring data protection.<sup>14</sup>

## 2. Challenges

The HR intelligent assistants still have some limitations related to technical and implementation challenges, language barriers, and the time and data needed to become efficient. Organizations need to implement their HR intelligent assistants while aligning them with their respective digital strategies and paying close attention to privacy and security.

AI is not a fail-proof technology and should be complemented with human intelligence. Therefore, it is imperative to acknowledge the importance of keeping a human in the loop when rolling out and maintaining the assistants. All data collected from interactions that take place should be consolidated into detailed reports, so that HR and executives can regularly assess the data to spot trends, anomalies, and problematic areas for improvement.

Organizations need to be patient as AI technologies require a large volume of data processing over a continuous period in order to produce an added value for them and their employees. HR readiness is an important aspect of the implementation of HR intelligent assistants in an organization. Organizations need to make sure their HR functions are aware of the capabilities and benefits of these tools in order to support their implementation and correctly advise on using them.

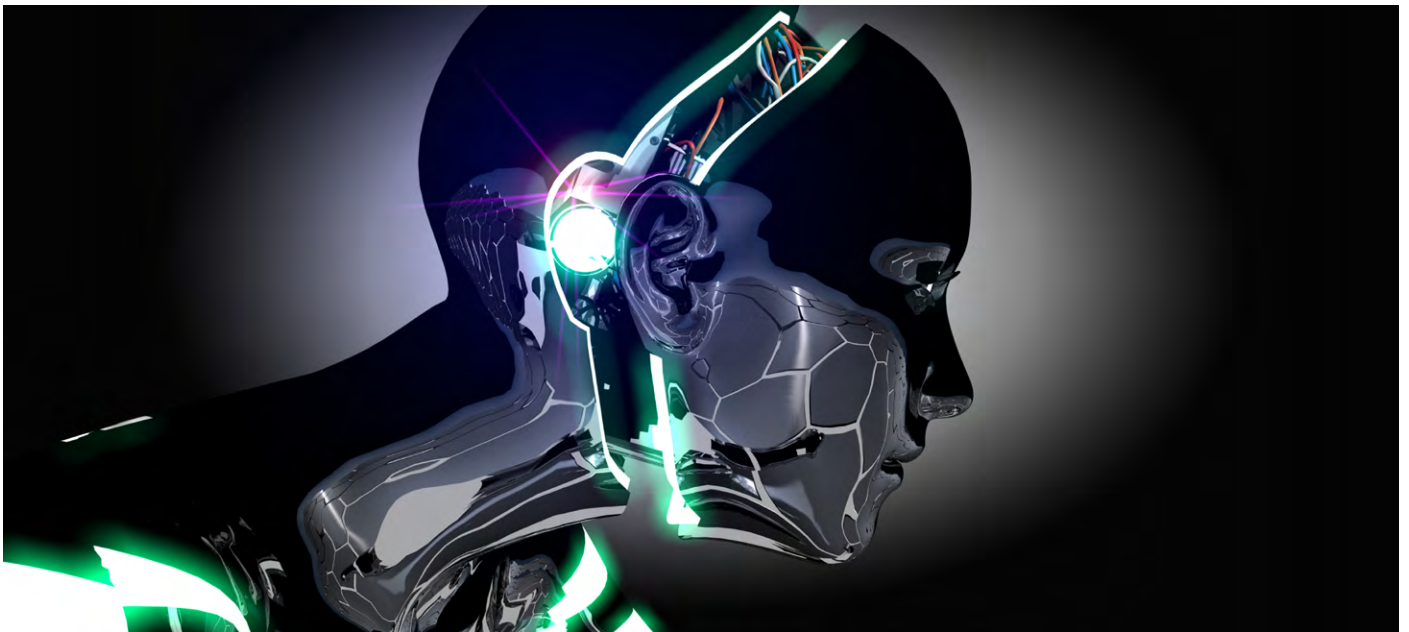
A proper implementation plan should include a broad organization-wide communication plan to help create the necessary uplift and ensure employee readiness and adoption. A strong change management strategy makes

sure employees are properly informed of the new capabilities and benefits of the new tools. A risk of low or weak adoption may arise in the absence of such a change management strategy and communication plan, which can eventually lead to low project ROIs or even failure of implementation. In addition, to ensure the success of the implementation plan a pilot exercise should entail going live with one service across the organization. Another option for the pilot is a roll-out of some services across one or a few business functions in the organization: for example, launching leave queries for all employees of a firm or activating all HR services for one business line of the firm. A successful pilot exercise demonstrates the effectiveness of the HR intelligent assistant's services before implementing it organization-wide.

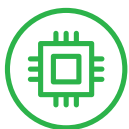
Understanding native language and adapting to specific scenarios is a challenge for HR intelligent assistants. Such limitations arise from the fact that the Assistants are designed to follow a specific path and different conversation flows, which makes it difficult to accommodate deviations away from a programmed script. In addition, processes and conversations in the Arabic language are still at an early stage of development and need time for proper sophistication. This will create a challenge when HR intelligent assistants are implemented in certain companies in the Middle East region, where the workforce is not bilingual.

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# HR intelligent assistants enablers



The implementation of HR intelligent assistants depends greatly on the current state of the organization and the availability/nature of enablers which can help ensure smooth implementation and proper use. Some of the main enablers are the following:



- Accurate and updated HR records and employee data which are set in an HCM system



- Implementation supported by a change management and communication strategy



- Leadership support of automation and AI initiatives within the organization



- Availability and engagement of the HR and IT team members to lead the implementation of the HR intelligent assistants



- Employee engagement, awareness and training on how to use the new HR intelligent assistants



- Established HR policies and processes in the organization

# Case study: Deloitte helps a global bank bring on a new workmate — an HR intelligent assistant<sup>7</sup>



## The challenge

A multinational bank relied on many service desk agents to support HR management processes—both onshore and offshore—which required significant training. In addition, the bank's existing automation tools were not effective. The bank then needed to explore cognitive technologies.

## The solution

Deloitte helped the client onboard an HR intelligent assistant. The team customized the tool to meet the bank's needs, and it became the first point of contact to handle common queries to the HR help desk. It was also configured to observe and learn how human agents handled escalations. Only if the bot was not able to answer a query would it be escalated to a human advisor.

## The results

- 50 percent reduction in response time
- Increased accuracy resulting in improved employee satisfaction
- Minimized the complexity of managing an onshore/offshore operating model
- Maintained 24/7 coverage
- Increased efficiencies and reduced costs

## Conclusion

Artificial intelligence will continue to grow in the coming years, pushing the boundaries of HR management. However, the benefits of AI and the automation of HR services will not materialize instantly. A balance of expectation versus reality is required and only with the correct readiness will HR leaders be able to leverage these concepts and provide a culture of innovation.

Therefore, organizations need to kick off their journey by identifying the required systems specific to the organization's needs, exploring the market, and building internal capabilities. As a result, they will start reaping the benefits of HR intelligent assistants.



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