



THE FUTURE OF HR

Improving Your Current HR Strategy Using AI

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When discussing Artificial Intelligence, or AI, images from movies like *Ex Machina*, *Westworld* or the *Terminator* franchise come to mind first for many people. In reality, an AI system is actually quite human in its ability to collect large amounts of data, store it, analyze it and make suggestions based upon it. But often this is confused with human intelligence. The difference is that AI is great at analyzing one simple operation such as reading a resume, where humans excel at more complex tasks such as empathizing with potential candidates or analyzing how someone may fit into the company culture.

Society tends to look at the idea of AI as some far-off sci-fi future, but that future is happening now.

While many companies may not know much about AI in the workplace at this point, according to *Forbes*, investment in AI accelerated from \$282 million in 2011 to \$2.4 billion in 2015—a 746 percent increase in five years. The World Economic Forum noted that investment continued to increase in 2016 with another \$1.5 billion invested in more than 200 AI-focused companies.

Just look at the digital assistants exploding on the market these days—from Amazon’s Alexa smart home speaker to Apple’s Siri, Microsoft’s Cortana and Samsung’s Bixby. Research and consulting firm Ovum predicts that the native digital assistant installed base is set to exceed 7.5 billion active devices by 2021, signaling the beginning of an AI-assisted world and advanced machine learning taking hold in society.

“There are so many tasks that consume a lot of time and money in enterprises. According

to our survey with our customers, various kinds of data input and communication between HR, managers and employees takes up 70 percent of an HR team’s time,” says Ken Osaki, Global Strategic HR Development Analyst at Works Applications, a company striving to improve the ERP experience for companies globally. “Those kind of repetitive tasks, up until now, only had one solution—hire people to input that data. Now that we have Artificial Intelligence, we can utilize it to automate as many of those repetitive tasks as possible because AI can improve itself through machine learning.”

Currently, AI examines and learns very specific subjects by finding patterns and analyzing data to suggest or perform a set of actions. A 2013 Oxford study estimated that approximately 47 percent of repetitive jobs will be automated by 2033. While some workers may fear that AI will take over many of their duties and jobs, the reality is AI is not that sophisticated at this point. Today’s AI in the workplace is about freeing workers from menial tasks in order to elevate them to more decision-making and value-adding positions for a company.

Most every company has some sort of customer service department or call center that receives many inquiries. Those inquiries create patterns as customers ask the same questions repeatedly—which led many companies to include Frequently Asked Questions (FAQ) sections on their websites to help address questions and reduce the number of customer service reps needed at a company.

Today, AI provides a more dynamic approach to the FAQ section by learning inquiry patterns and expanding their scope to give comprehensive responses to consumers. Some companies developed chatbots to address those inquires. For example, hotels are starting to use chatbots to directly interface with their guests. Guests can submit a question through a mobile app on their phone and the hotel’s chatbot system already has a catalog of answers, so guests can ask what time the spa is open or what time breakfast is served and the AI system will give them an immediate response. The benefit of using these AI systems are simple—they can gather, process and analyze data much faster than humans.



ARTIFICIAL INTELLIGENCE IN HR

While companies are already beginning to use AI systems for customer interactions, incorporating AI for human resource operations is a logical next step. Using AI in an HR environment can assist a company in analyzing operations and providing suggestions for future operational needs.

As AI in HR gets people to move away from the repetitive tasks their talents are wasted on, they can target their energies on more high-level tasks, such as finding promising employees and working to keep them with the company. HR staff will be able to focus on being a strategic partner to business divisions rather than just crunching data as a task processor.

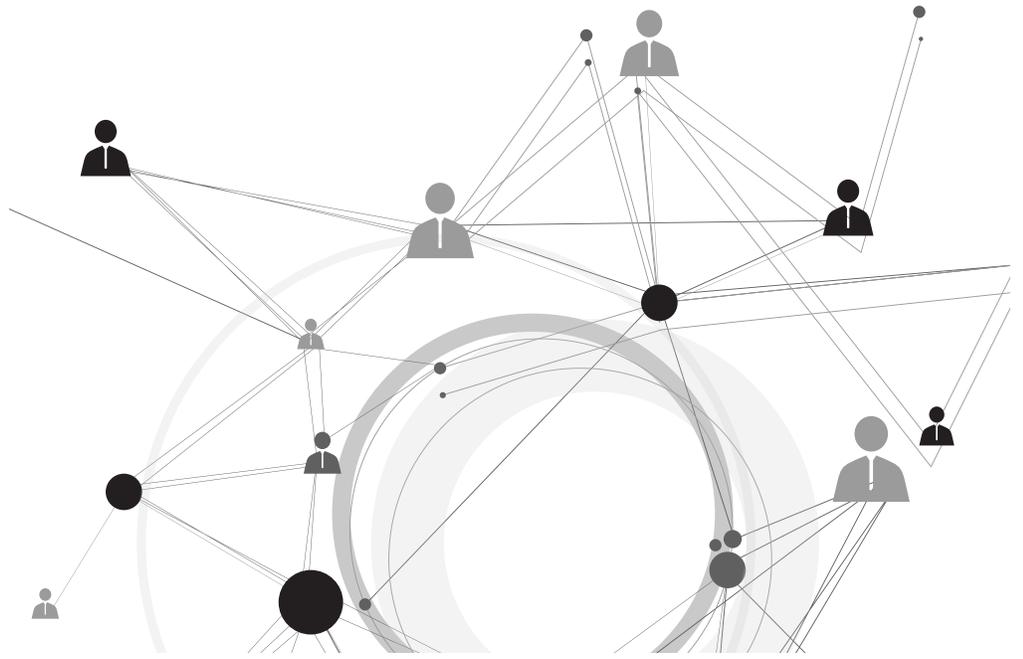
“If you submit the same report every week around the same time, the system will pick up on that and it will just begin to automatically create that report for you,” explains Richard Harris, Global Strategic HR Development Director at Works Applications America. “This process then turns an HR employee into sort of an administrator where they just review the report and approve it. That way, they don’t have to do the physical creation of standard reports anymore, which is really the basic idea behind using AI in HR.”

Simply put, AI will empower companies to make faster decisions by accessing up-to-date information quickly, spotting trends through pattern recognition, using machine learning to identify past mistakes to avoid and, overall, accelerating processes.

By incorporating AI into a company’s human resources department, the mission of HR is likely to see three stages of transformation:

- No. 1:**
Productivity and efficiency improvement by the process automation of routine tasks
- No. 2:**
Value addition to HR by high-level automation of tasks and enhanced intelligence
- No. 3:**
Strategic workforce consulting

Now let us dive deeper into how AI technologies could impact the future role and mission of HR.



EFFICIENCY IMPROVEMENT

Experts believe that two fundamental things will happen in HR during the first stage of AI implementation. The first is the automation of routine tasks. By leveraging machine learning, certain repetitive HR tasks can be automated, such as the data entry of resumes.

Many companies deal with a high volume of resumes. Large organizations might get hundreds of thousands per month. Processing them by hand is a very arduous task, and just getting them into the system is the first step. HR staff must go through the document and put relevant data into a database so they can work with the information. Paper resumes have to be scanned to create digital versions, and electronic copies do not always line up exactly with a company’s database. But what if there was a better way of handling these documents?

In the future, by utilizing AI in HR, a system will understand the basic concept of resumes

and pull information such as names, addresses and work history from digitized documents to populate an organization’s database. If the AI system is unsure how a resume section correlates with the database, it might suggest to HR what it thinks is the correct action. The HR staff will then either accept the suggestion or decline it, allowing the AI system to learn from the decision and adjust its suggestions going forward.

The second fundamental change during this stage concerns communications between HR, managers and employees. Companies should redesign their communication processes across the organization to reduce unnecessary contact, thereby enhancing productive communication since communication steals up to 70 percent of HR’s time. This can be achieved with a central communication hub that includes an analytical dashboard, statistical information and productivity tools for employees, as well as an integrated, AI-powered chatbot that can handle day-

BASIC IDEA

AI will empower companies to make faster decisions by:

- accessing up-to-date information quickly
- spotting trends through pattern recognition
- using machine learning to identify past mistakes to avoid and, overall, accelerating processes

to-day inquiries such as employee benefits information or obtaining new tax forms.

“A chatbot would be one way to respond to all of the basic questions and inquiries coming from employees,” explains Osaki. “That would integrate alongside other working tools such as a timeline, chatting tools or online spreadsheets. It’s very important that those productivity tools are fully integrated into the software. The current strategy is to build standalone tools, forcing users to log in to multiple systems throughout the day. That’s not efficient.”

Other examples of how AI will start to transform HR include assisting employee requests for things like personal time off or signing off on an evaluation.

“Those kinds of tasks cannot be fully automated, but an AI system can suggest to the HR department if they should approve the specific item or not by learning past approval histories,” says Osaki.

To utilize chatbots, data is key for AI to learn and analyze. In order for AI to work well, it’s important that HR data is integrated in one HR core system. Organizations need to collect all the tasks and inquiries they can find and plug the information into the system. The AI software will learn from this data to find patterns or formulas for asking questions in order to find the most effective responses and answers. The system picks up on past questions to figure out what the best response is so that the HR department doesn’t need to respond to 50 percent of inquiries — freeing up employees to focus on other work.

VALUE ADDITION TO HR

The question for HR professionals at this stage is: what value can they add to their organization after many routine tasks have been automated? The short answer is better management of a company’s human resources — but HR personnel will have to be creative to establish new value during this transitional stage and the situation will be different from company to company.

“In this stage, the HR department hasn’t fully transformed to the future HR department,” explains Osaki. “That means that some people will still be working on routine work — things like responding to more complex questions, some document processing and organizing performance review results.”

FUTURE OF HR

In the future, the main job of HR personnel will be to create value in organizations beyond just processing tasks such as:

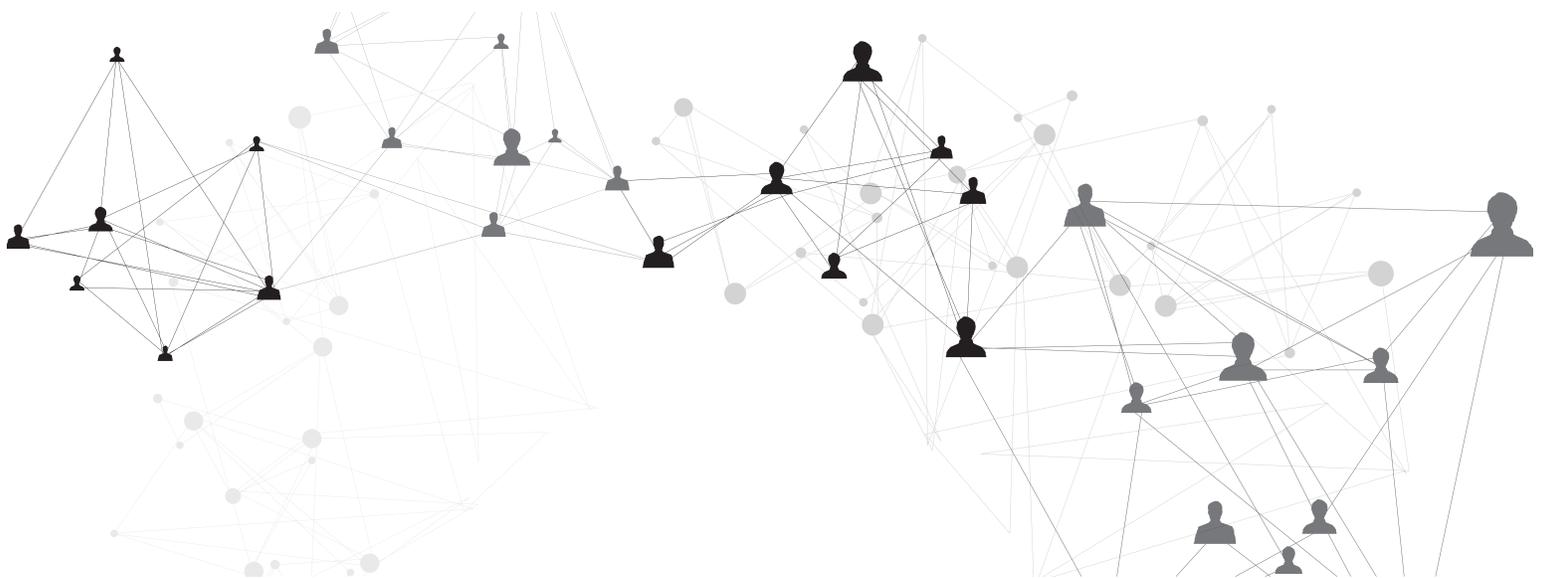
- Incorporating payroll data with cost accounting and global optimization of compensation
- Global data integration (Integrate HR data with accounting, external systems/ services, etc.)
- Data-driven talent analysis, talent management and succession planning
- Data-driven recruiting

Organizations should determine what additional functions they require of their AI solution. Some companies need a succession planning function, while others might want further task processing automation. HR and IT leaders will need to work together to design the future combination of HR software and AI, because the goal is not just to automate more tasks, but to get the right tools to the HR department for their existing needs.

“While some HR staff will continue working on traditional tasks, other people will be freed up to start providing insight to other departments and improve recruitment methods as HR starts to become more of a strategic business partner to other divisions,” adds Osaki. “One example would be advice on who would be the best possible candidate for a department’s next project, based on the information HR has on employee qualifications and abilities. But qualifying abilities can be tricky without AI.”

Each time an employee interacts with a company system, it creates a log with associated data. When the data is incorporated into an AI system, the AI can start to see correlations over time—something that would be impossible for humans to do. It is akin to online dating apps that try to find connections for users based on data such as: hobbies, desire for children or love of pets. All a dating app is doing is correlating data to make suggestions.

Recruiting automation is using similar data correlations to make inferences about applicants’ ability to fit into a company’s

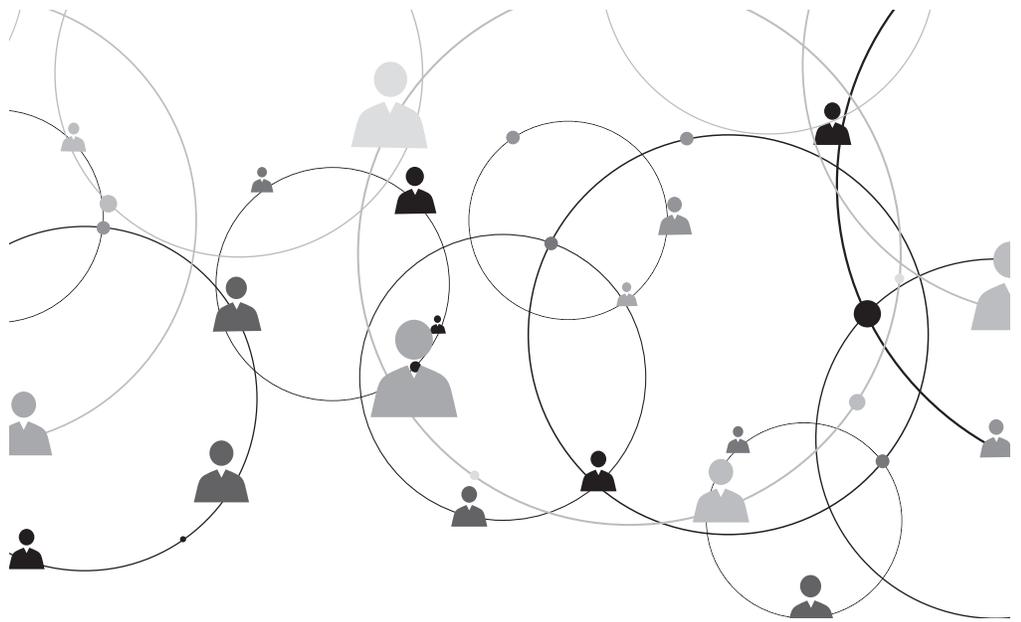


culture. When a company recruits a new person, they might have specific criteria or qualifications that they are looking for, but currently it is hard to determine the high performers in a company perfect for the job or if an applicant will become a high performer in a particular position.

“It’s difficult for recruiters to see because they don’t have enough data to back them up,” says Osaki. “So the AI system tries to collect as much data from not only the HR software, but also from any possible data points like performance review results, work history or education history.”

Based on high-performing individuals already within a company, an AI system in HR can suggest the type of people that would fit well in a new position. The system can help HR try to fit personality types, skills and education with a particular position in the company. HR can also use AI for succession planning for higher-level positions. If a company needs a new VP of marketing for a New York office, The AI system can provide a list of potential candidates and make recommendations based on the job description — that HR has defined — to narrow down the selection process. By mixing AI system recommendations and human employee intelligence, companies can receive high-level suggestions for succession planning.

“The HR department is now spending more time picking the right people to be employees,” adds Harris. “Before implementing AI, they spent most of their time with data entry and had very limited time to look at candidates. Now the HR department can begin to really think about how a candidate or employee fits in. They can really develop a relationship with them and make sure they fit the company culture. The amount of money it can cost to recruit, hire and bring



someone on board can be astronomical. Using AI in HR can help the department make better personnel decisions and reduce the costs associated with high turnover.”

STRATEGIC WORKFORCE CONSULTING

At this stage, most of the old, necessary tasks are automated so that HR is no longer a task-processing department. The HR staff will fully transform into an critical group that analyzes objective HR data provided by the AI system.

“After automating those repetitive tasks, the mission of HR will be to give suggestions as more of a consultant to other divisions,” says Osaki. “Other departments always need advice on how they can best utilize their human resources. The new HR department can be the analysts of existing human resources and a strategist to assign employees, or recruit people from outside the company, to fill needs and open positions. So, HR becomes

more of a strategic partner for the rest of the business divisions in the company.”

While the success of an AI implementation might not be immediately observable, a company could look at some measurable metrics to begin to understand the connection. For example, a company can measure increases in productivity due to the introduction of AI. An organization can use data that examines productivity over time or other company-specific KPIs such as reduction of workforce or working hours.

“HR will be better positioned to effectively manage their current workforce,” adds Harris. “It’s developing new strategies and having the *time* to develop those new strategies that add value.”

WHAT LEADERS NEED TO DO

To start down the road of using AI in HR, company leaders first need to understand

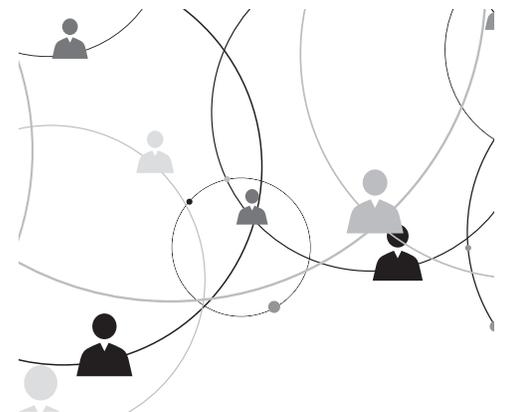
AI IMPROVING WORKFLOW

ABILITIES

- Finds patterns in large amounts of data
- Performs repetitive, routine tasks
- Gives suggestions tailored to each user

APPLICATIONS

- Reduced inquiries regarding payroll, time and attendance, benefits and approvals
- Reduced time and effort in creating reports
- Reduced management effort for document submission during the onboarding process
- Improved routine efficiency in operations for recruiters



what they are looking for. There is no out-of-the-box solution waiting on a store shelf for the IT department to install and start using.

“Education would be the first thing,” explains Harris. “Go to conferences, read whitepapers, attend webinars — go online and do as much research as you can. Find vendors that sound interesting and sit down with them for a face-to-face conversation and demonstration of their software.”

To understand what a specific company will need, leaders should determine the ideal future of their HR department. They need to define the strategic direction of the department once automating tasks and redesigning communication within their organization has taken place.

“Companies may want to avoid choosing software that simply says ‘automation,’ because what’s behind the software may not really be automation, but people working behind the scenes,” explains Osaki. “There is a lot of business software that says it is ‘automation’ but is more or less just paperless — requiring a lot of manual involvement. For example, software saying it is recruiting automation is more likely to just have applicants apply through a portal on a web browser so that recruiters don’t need to work on data entry from paper resumes. That’s not AI. To find true AI software, the key term is ‘machine learning.’ So find software that uses machine learning for a genuine AI experience.”

As for IT leaders, they should support HR leaders as much as possible from a technology perspective. They need to help identify where to start using AI first, how to integrate it within

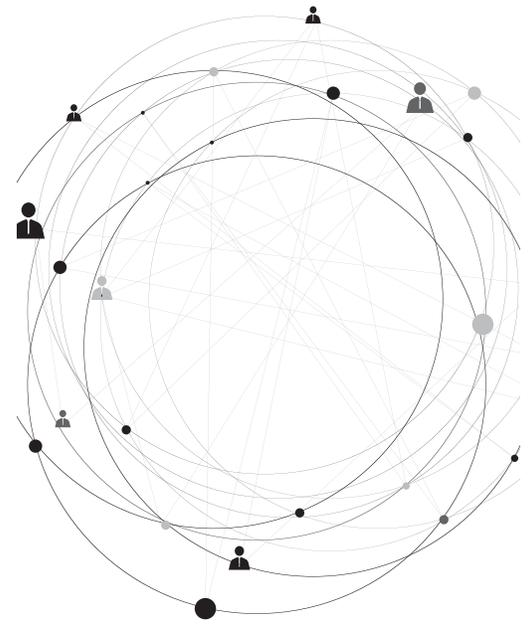
the core HR system using company data, and address any security concerns.

Leaders should start small by looking for an unproductive area of the company or finding routine or repetitive tasks to try AI first and easily test its ROI. At the same time, these leaders should identify the next steps needed to deploy the technology most effectively throughout the company — outlining the big picture and designing the road maps needed to get to the company’s ideal future.

“It really comes down to choosing the right vendor,” says Harris. “Who’s going to check all the boxes for what you really need?”

To avoid issues, companies have to sit down, figure out what their current workflow is and talk about how that workflow could change for the better. Some vendors will conduct an operational study to tell organizations where those improvements can be made. Companies should find a vendor that they can have a good relationship with, are comfortable talking with and can trust. Then they must get their whole company on board.

“It has to be a global effort if you are building a global system,” adds Harris. “You just can’t dictate from the top down. We’ve heard from several companies that the reason that their implementation failed was because their subsidiaries weren’t looped in. They didn’t know what was going on. So have regular meetings to make sure everybody understands the steps that are being taken to make sure everybody’s needs are being met. That is the best way to be successful.”



ABOUT THIS REPORT

The information in this report was researched and produced by Manufacturing.net in conjunction with Works Applications. Statistical data was researched and compiled by Advantage Business Media in June 2017.

ABOUT WORKS APPLICATIONS

Works Applications, founded in 1996, is Japan’s largest HR and ERP software provider by market share. More than 7,000 organizations from all major industries, including healthcare, education, manufacturing, energy and transportation are customers, including 1,100 of the largest Japanese brand-name companies. Works Applications employs over 6,000 people worldwide, with offices in Tokyo, Shanghai, Singapore, New York, Los Angeles and Chennai. For more information, please visit worksap.com/us.

CONCLUSION

Where is AI in the workplace heading?

“We see it as a personal assistant,” says Harris. “Imagine having Siri or Alexa in your office actually helping you with your daily tasks. It’s very well possible.”

Who knows where workplace AI could be in 20 years? For the time being, AI is not there to make decisions but to give suggestions to personnel. AI will continue to get better and better at assisting HR strategists, but it is not designed to take over the HR department. It will just become smarter to assist the HR department.

“AI WILL BRING SIGNIFICANT COST REDUCTIONS AND PRODUCTIVITY IMPROVEMENTS TO ENTERPRISES,”

concludes Osaki. “That’s significant and what companies need to understand.”