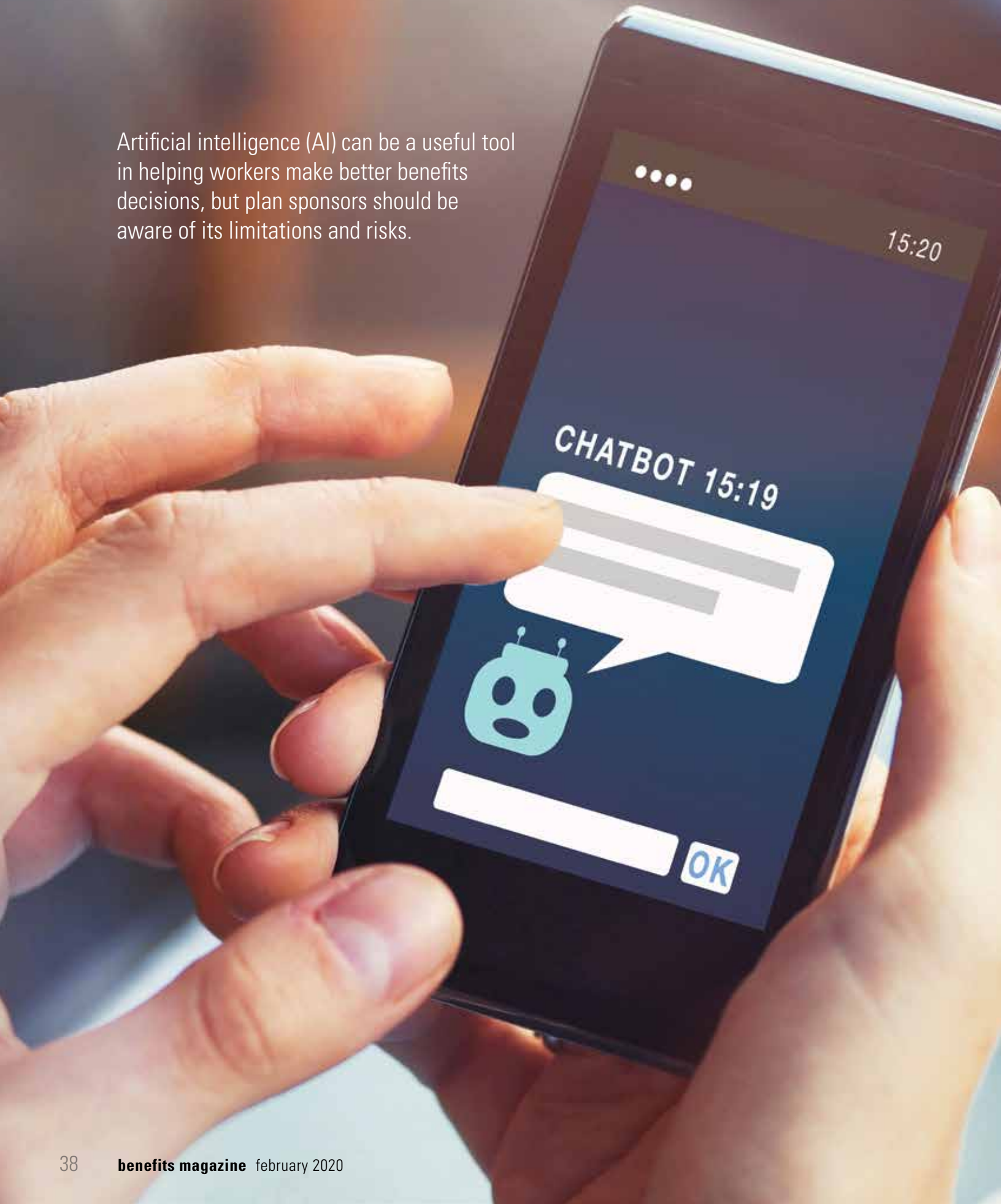Artificial intelligence (AI) can be a useful tool in helping workers make better benefits decisions, but plan sponsors should be aware of its limitations and risks.

ARTIFICIAL INTELLIGENCE

IN EMPLOYEE BENEFITS

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benefits
MAGAZINE

Employers and plan sponsors seeking to provide a more robust and personalized experience are increasingly using artificial intelligence (AI) technology for activities such as benefits enrollment, retirement planning and hiring.

AI is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans.[1] Developed through massive amounts of data input, including predictive and analytical data, and analyzing the relationships of the various data, AI has and will continue to change the employee benefits experience for both employers and employees.

AI can highlight benefits areas that may interest particular groups of employees, such as paid time off (PTO) or retirement options for older employees and medical or disability benefits for employees with families. AI also assists employees with making informed and logical decisions.

Most employers access AI through benefit administration software such as platforms for open enrollment. These platforms are available off the shelf or can be custom built depending on the employer's budget and needs.

Although AI can be an asset for helping employees make complicated benefits decisions, employers should be aware of some of the limitations and other considerations, including data privacy.

Using AI in Benefits

When using AI for enrolling in or changing benefits, systems can react to employee responses to a set of questions and generate guidance for the employee. This may be an effective tool for the following options.

- **Life and disability insurance**: Most employers provide a core amount of coverage tied to a group policy. However, employees often can choose alternate levels of coverage such as dependent life. AI tools can ask employees a series of questions to form guidance on these topics, balancing a variety of considerations, such as how much coverage the employee has outside of an employer-provided policy, medical conditions and cost and make a recommendation.
- **Medical, prescription drug, dental and vision benefits:** Making complex decisions can require extensive data and related information in order to make an informed election for the type of plan. AI creates decision-matrix solutions to aid in the process. The *decision matrix* is a technique that formulates options for possible solutions based on relevant data provided.
- **Retirement planning:** Similarly, AI can look at an employee's information such as current pay, living expenses and other benefit choices and develop an investment plan to meet retirement needs. AI can also update these plans when an individual's criteria changes.
- **Open enrollment:** AI can improve the annual open enrollment process because it can build upon prior data with updates that may shed light on areas that may have been missed. For example, AI may help in determining what health plan employees should enroll in based on their use in previous years. *Machine learning,* which helps computer systems grow smarter through real-time data, can create additional opportunities for more specific benefits recommendations than current algorithms can provide.[2]

Additional AI applications for employee benefits include the following.

- **Wellness programs:** Employers have implemented wellness programs that are often tied to universal goals but not personal goals. AI can review employee health claims data to recommend lifestyle programs or resources that are personalized to individuals. A prediabetic employee might receive glucose management support, or those with high cholesterol may get access to suggestions for lifestyle changes.
- **Benefits education:** AI also can help educate employees on their benefit plans via some form of automation

takeaways

- Employers and plan sponsors are increasingly using tools that employ artificial intelligence (AI) and machine learning for employee benefits.
- AI may be particularly effective at open enrollment and for guiding choices for life and disability insurance; health, prescription drug, dental and vision benefits; and when making retirement planning decisions.
- AI has limitations, however. For example, an AI tool may guide an employee to choose a high-deductible health plan without knowing whether the employee has the personal assets to cover a high deductible if needed.
- Employers that use AI should make sure to disclose its use to employees and should be aware of data privacy issues.

rather than a live person in a benefits call center. According to a report by TechTarget,[3] cloud-based collaboration software provider LogMeIn is already experimenting with a chatbot as its initial point of contact for benefits enrollment queries. A *chatbot* is a computer program designed to communicate with human users through the internet.[4] The chatbot replies to questions using the knowledge database available to it. It is able to learn from interactions, gradually growing in scope and gaining relevance.

AI can predict when employees will have questions and then proactively reach out and provide assistance in solving their problem before they even realize there's a problem to solve. According to a report from PwC,[5] improving customer experience ranked second among what businesses most hope to get out of AI technology (behind revenue and profit growth).

This level of customer service is hard to pull off with humans alone—but with automation, employees could get a seamless experience, and the employer could get the benefit of a satisfied workforce with the tools to make the most of their health benefits.

As with any new tool, there are certain types of benefits for which AI will not be practical. Although AI may help in choosing health plans, it has its limits, especially when one of the choices is a high-deductible health plan (HDHP). The data used to construct the algorithms around choices may not be able to contemplate the ability of the employee to pay the cost of the high deductible. For example, if an employee is evaluating choices and decides, with the help of AI, that there is a better tradeoff by electing a plan with a lower premium, the matrix may not be able to determine whether the employee actually has the personal assets to cover the large one-time payment for the deductible (e.g., if an employee ends up needing surgery and has an immediate bill for $5,000 or more). As such, the AI tool may point to a choice that doesn't consider all factors.

AI Can Improve Time Management and Reduce Costs

As currently configured, claim data reviews and prior authorization requests are a high-level manual process. Machine learning can eventually speed up the process and apply prior patterns and data to new claims and authoriza-

tion requests for faster review. The review will also highlight areas within a plan that are underutilized. The benefit of this analysis is to either create ways to better optimize these areas or eliminate the provisions and reinvest the savings elsewhere.

Better Outcomes for Employees and Employers

Using AI to deliver relevant content could boost employee engagement not only with the benefits themselves but also with the organization as a whole. This can increase benefit take-up and lead to improvements in areas such as retention and productivity.

Employee benefits are complex—Only 40% of U.S. consumers[6] are confident in their ability to choose the best health care plan. Even within the same employer, there can be a wide variety of offerings. A single company might offer the choice of three different plans for medical, dental and vision, as well as a health savings account or flexible spending account. Companies also might offer different wellness programs or even alternative prescription drug benefits. If an HR department gets a question about something, staff often direct the employee to call the service provider, and many of these vendors may use outdated technology like call center interactive voice response (IVR) systems.

AI may lead to better outcomes for employees. When information is made more relevant to employees, they are much more likely to act on it. This can lead to better habits and decisions. For example, if an AI assistant helps employees understand how much they need to save for retirement and where the most savings could be made by changing spending habits, this insight could help employees divert more money into their 401(k) plans.

Cost and time limitations make it extremely difficult to provide advice to all employees on a face-to-face basis, but

AI can deliver information to aid informed choices with advisors stepping in to support those with more complex requirements. Employers also benefit financially with new approaches resulting in greater efficiencies in the way that benefits are used. This is particularly the case with health products, which often overlap.

Communication and Legal Issues

Communication

Employers that use AI to assist employees in making decisions should fully disclose this fact and emphasize that the answers to questions are based upon each employee's answers to a variety of questions combined with programming and the use of algorithms. There are no emotional factors included and, in fact, there could be biases built into the programming that trigger responses based upon the programmer. This can be problematic because women and minorities are underrepresented in the technology field.

Humans with certain predetermined biases based upon their own frame of reference create the decision algorithms programmed for benefit choices. This includes the fact that their reference points are a function of their demographics and environment. As such, their programming may unintentionally create a biased decision path. Could this bias actually lead an employee down a particular path pertaining to benefit choices? The simple answer is no, since the path is created based upon real data and answers to questions. However, the real answer is clearly yes, since this is a risk that has been determined when viewing other AI uses in HR such as identify-

ing qualified candidates in recruiting. For example, statistics have proven that employees are far more likely to experience a disability than death during their working life. Would the programming biases have a strong focus on disability or death? Can the importance of this issue using data and decision making be emphasized enough to create a meaningful answer?

There is not yet a definitive solution to eliminating biases, but the use of a representative data set and frameworks to measure bias at various stages can help reduce the impact.

Legal Issues

AI in the workplace also may expose employers to potential violations related to the Health Insurance Portability and Accountability Act (HIPAA). As employees input data into the enrollment system related to themselves and their families, such as specific health conditions (e.g., an employee's daughter has diabetes or an employee has high blood pressure), and then receive suggestions through developed algorithms for plans, employers could face serious HIPAA violations if the data is compromised. Similarly, if a plan uses a chatbot and the information became compromised, that too would be a HIPAA violation.

Employers also should make sure that any data gathered through AI does not violate Title II of the Genetic Information Nondiscrimination Act of 2008 (GINA), which prohibits genetic information discrimination in employment.

A number of bills with some relationship to AI have been introduced in Congress. Obviously, not all are relevant to health care and employee

benefits, but as the use of AI continues to expand into the workplace, and personal information continues to be collected, regulators will be watching how data is collected, cleansed and stored as well as how algorithms are developed.

Best Practices

AI carries with it tremendous potential as a solid support tool; however, it should not be the only tool. Prior to implementing AI, employers should consider the following policies and procedures.

- **Don't rely exclusively on AI results.** Employers should not make AI the exclusive tool for benefits administration and should make access to human intervention available if an employee is uncomfortable with providing information or if the tool provides incorrect results based on employee input.
- **Document the process**. Before implementing AI in any aspect of HR, employers should carefully document the process, including the factors used in creating the algorithms and the data used to develop the algorithms. Often the software vendor has this documentation, but employers would be prudent to ensure it does exist and is accessible.
- **Create additional internal controls around data storage/access.** Documentation should include creation of additional firewalls or other necessary protections to comply with laws including HIPAA and GINA as well as Equal Employment Opportunity and Department of Labor regulations.

Endnotes

1. See www.techopedia.com/definition/190/artificial-intelligence-ai.
2. Scott Evans, "Using Artificial Intelligence to Guide Health Benefit Choices," *Benefits Magazine,* August 2018.
3. See https://searchcio.techtarget.com/feature/Chatbot-technology-brings-self-help-IT-to-life-at-LogMeIn.
4. See https://bigdata-madesimple.com/how-do-chatbots-work-an-overview-of-the-architecture-of-a-chatbot/.
5. See www.pwc.com/us/en/services/consulting/library/artificial-intelligence-predictions-2019.html?WT.mc_id=CT3-PL300-DM1-TR1-LS4-ND30-TTA5-CN_ai2019-ai19-ggl1&eq=CT3-PL300-DM1-CN_ai2019-ai19-ggl1.
6. See www.policygenius.com/health-insurance/health-insurance-literacy-survey/.

bio

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