

What Does Artificial Intelligence & Data Analytics Mean for Your Wellness Programming?

Affiliations & Disclosures

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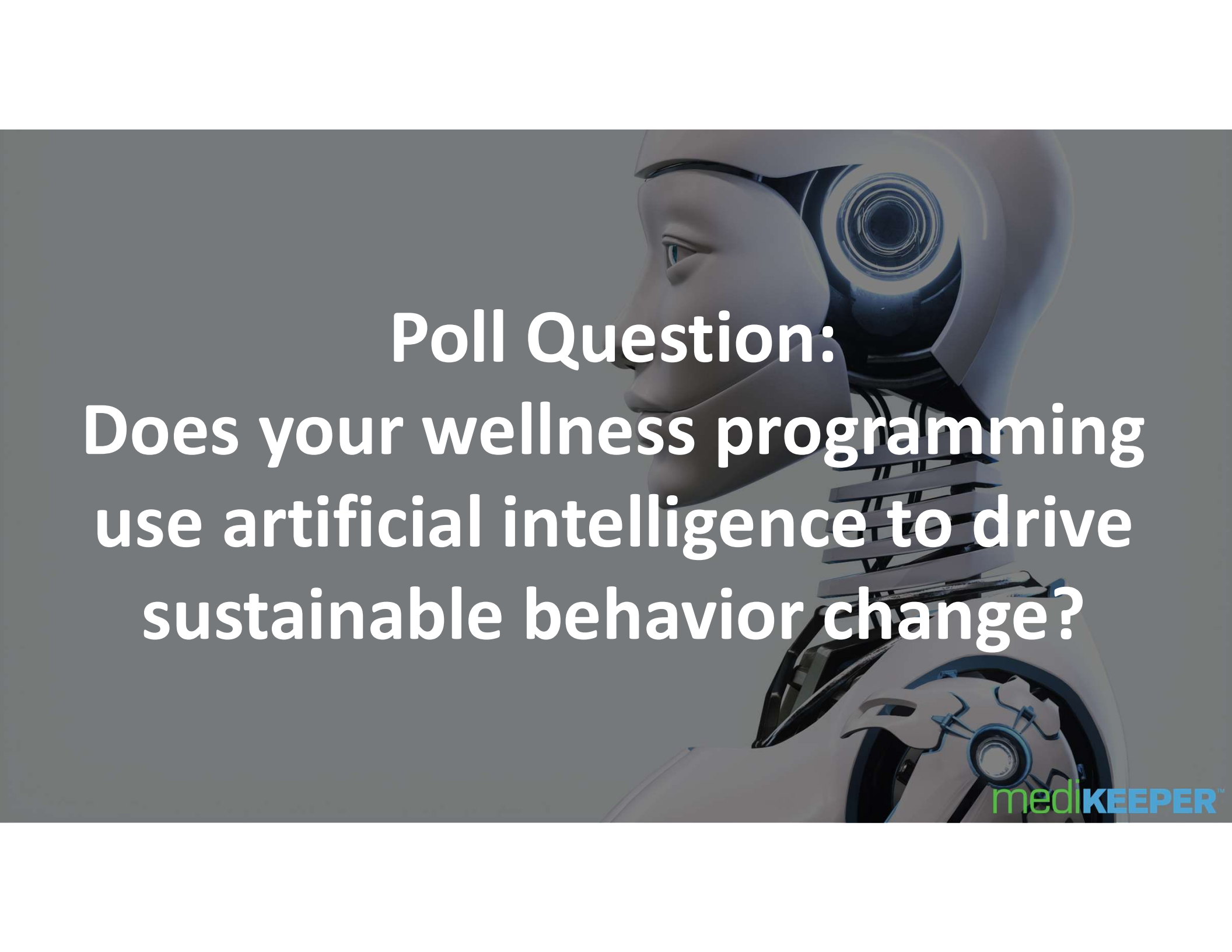
PACIFIC COAST UNIVERSITY
FOR WORKPLACE HEALTH SCIENCES



Work Wellness Institute
L'institut de bien-être au travail

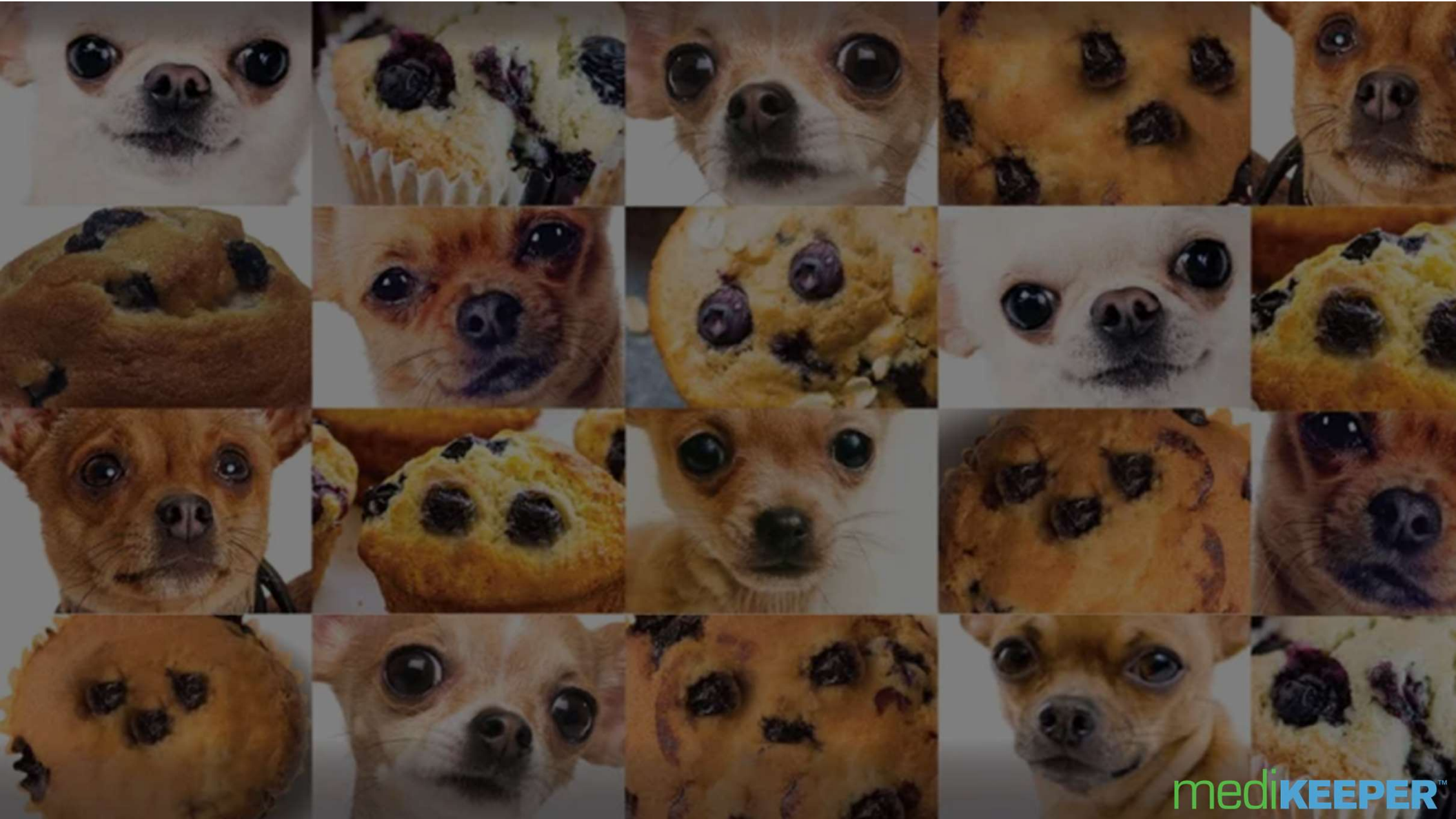
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Poll Question:
What role does technology and data analytics play in your wellness solution?



Poll Question:
**Does your wellness programming
use artificial intelligence to drive
sustainable behavior change?**

- 1. What is artificial intelligence?**
- 2. I have no idea if my programming uses artificial intelligence!**
- 3. I think artificial intelligence plays a role in my programming**
- 4. Artificial intelligence plays a major role in my programming**



Artificial Intelligence (AI)

Any technique which enables computers to mimic human behavior

Machine Learning (ML)

AI techniques that give computers the ability to learn without being explicitly programmed to do so

Deep Learning

A subset of ML which make the computation of multilayer neural networks feasible

1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070

Development of a Computer-Based Clinical Decision Support Tool for Selecting Appropriate Rehabilitation Interventions for Injured Workers

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Susan Barnsley · Calvin Hays · Tyler Amer

Greg McIntosh · J. Scott Cooper · Greg St. Pierre

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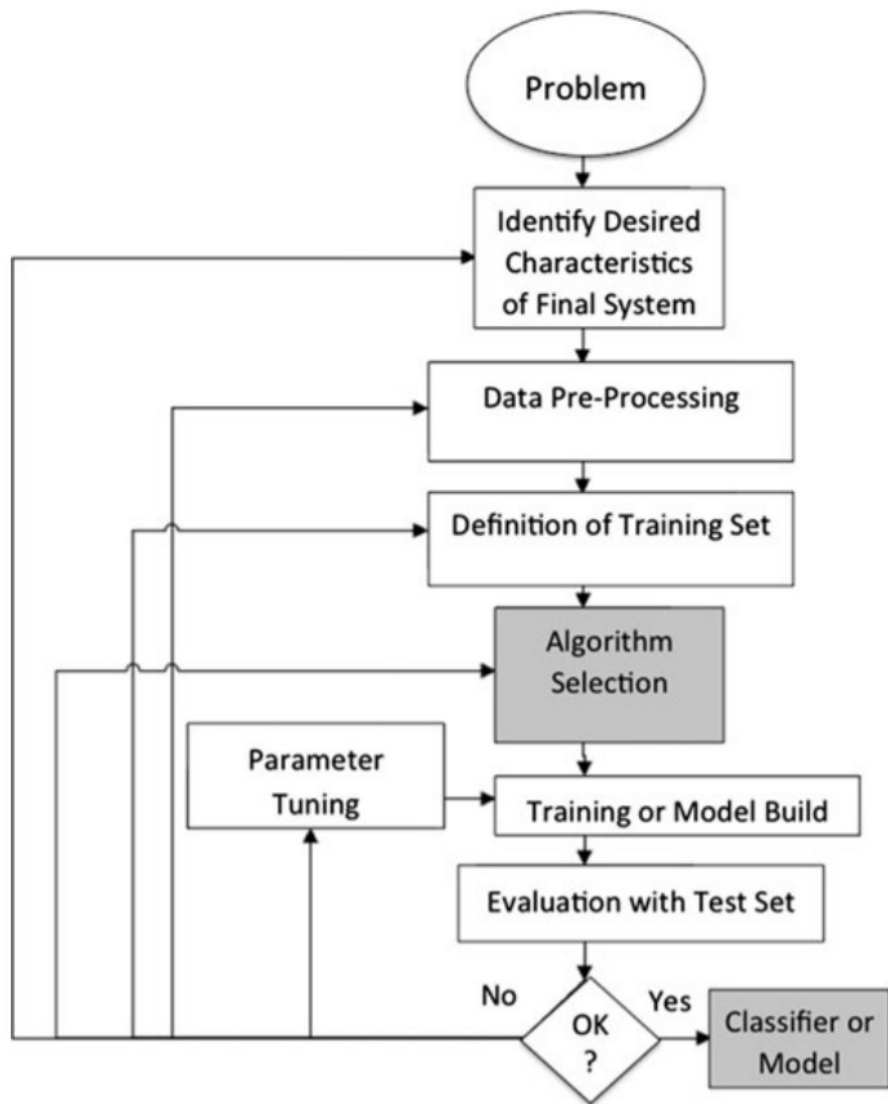
Abstract *Purpose* To develop a classification algorithm and accompanying computer-based clinical decision support tool to help categorize injured workers toward optimal

on empirical data, was the foundation of our approach to build a classification system with multiple independent and dependent variables. *Results* The population included

The use of machine learning classification techniques appears to have resulted in classification performance better than clinician decision-making.

using Chi square and t-tests. Machine learning, concerned with the design of algorithms to discriminate between classes based on empirical data, was the foundation of our approach to build a classification system with multiple independent and dependent variables [63]. Machine Learning can help overcome human errors inherent in making complex classifications using multiple features or variables. The goal of machine learning is to build a concise model of the distribution of class labels in terms of predictive features [63]. In our case, the 'label' is the

R - Repeated
I - Incremental
P - Pruning
P - Produce
E - Error
R - Reduction






workplace wellness programming

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November 2022 ChatGPT is Released

+ New chat

April

Medikeeper's Health Empower

Upgrade to Plus **NEW**

Dr. Tyler Amell

GPT-3.5 GPT-4

ChatGPT

Examples	Capabilities	Limitations
"Explain quantum computing in simple terms" →	Remembers what user said earlier in the conversation	May occasionally generate incorrect information
"Got any creative ideas for a 10 year old's birthday?" →	Allows user to provide follow-up corrections	May occasionally produce harmful instructions or biased content
"How do I make an HTTP request in Javascript?" →	Trained to decline inappropriate requests	Limited knowledge of world and events after 2021

Send a message

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT July 20 Version](#)



+ New chat

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Workplace Wellness

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D build me a workplace wellness program

Designing a workplace wellness program requires careful planning and consideration of the needs and preferences of your employees. Below, I'll outline the steps to create a comprehensive workplace wellness program:

1. **Assess Employee Needs:** Conduct surveys or focus groups to understand the health and wellness needs and interests of your employees. Identify common health issues, stress factors, and preferences for wellness activities.
2. **Set Clear Goals:** Based on the assessment, establish clear and measurable goals for the wellness program. For example, you might aim to reduce stress, improve physical fitness, promote healthy eating habits, and enhance overall well-being.
3. **Create a Wellness Committee:** Form a wellness committee consisting of representatives from various departments. This team will be responsible for planning, implementing, and evaluating the program. It ensures diverse perspectives and broad involvement from the workforce.
4. **Develop a Budget:** Determine the budget for the program. Allocate funds for resources, events, incentives, and any external services you might need, like wellness workshops or experts.
5. **Offer Health Screenings:** Arrange for periodic health screenings, such as blood pressure, cholesterol, and BMI measurements. These assessments can help employees identify potential health risks and track their progress over time.
6. **Promote Physical Activity:** Encourage regular physical activity by organizing fitness challenges, group exercises, or providing gym memberships. Consider incorporating walking meetings or standing desks to reduce sedentary behavior.

Send a message



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- Promote Mental Health: Offer stress management workshops, mindfulness training, and mental health resources. Create a supportive environment where employees feel comfortable discussing mental health concerns.
- Organize Wellness Challenges: Run friendly competitions or challenges focused on different aspects of wellness, such as step challenges, hydration challenges, or meditation challenges. Offer incentives to motivate participation.
- Offer Flexibility: Support work-life balance by providing flexible working hours, remote work options, or opportunities for personal days to reduce stress and burnout.
- Employee Assistance Program (EAP): Offer an EAP that provides confidential counseling and support services for employees facing personal or work-related challenges.
- Create a Wellness Calendar: Plan and promote wellness events throughout the year. This could include health fairs, workshops, seminars, and team-building activities related to wellness.
- Measure and Evaluate: Regularly assess the effectiveness of the program through surveys and data analysis. Use this feedback to make improvements and ensure the program remains relevant and engaging.
- Communicate and Engage: Consistently communicate about wellness activities, successes, and opportunities for improvement. Use various communication channels like emails, bulletin boards, and company newsletters.
- Lead by Example: Encourage leadership to actively participate in the wellness program to promote a culture of well-being throughout the organization.

Remember, a successful workplace wellness program is ongoing and adaptable. Regularly seek feedback from employees and be willing to make adjustments based on their needs and preferences. A healthy and engaged workforce can lead to increased productivity, reduced absenteeism, and improved

Regenerate response


Send a message



Strengths: Augmenting your own knowledge, and starting a foundation for you to build upon; personalization, health risk, navigation and workflow, behavior change

Weaknesses: Bias and ethical considerations, privacy, accuracy of information (only as good as the training material consumed)

Integrated data sets, and their interpretation, driving information, knowledge, insight and action, are a key factor in the success of modern wellness programming.



Poll Question:
**How do you normally make
decisions about your
wellness programming?**

- 1. Randomly, no rhyme or reason, if it feels good, do it!**
- 2. Gut instinct, intangible**
- 3. Some data, historical?**
- 4. Combination of gut instinct and data**
- 5. More data, real time?**
- 6. Data analytics driven, prediction algorithms**
- 7. Fully automated, artificial intelligence & machine learning**
- 8. The autonomous robots are clearly in charge**



Analytically Driven Organizations Outperform

49% Higher Revenue

20X Profit Growth

3% Higher Return on Invested Capital

Source: IBM

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1/3 of leaders say they make critical decisions without the information they need

50% of leaders state they do not have access to the information from across the organization to do their jobs well

Source: IBM

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“The harnessing, analysis and conversion of these data into knowledge represents the **new competitive advantage** in the **drive toward productivity**. It can help companies identify hidden insights to gain a comprehensive view of a customer, understand behaviors in real time, predict outcomes, make more informed decisions and move into new markets.”

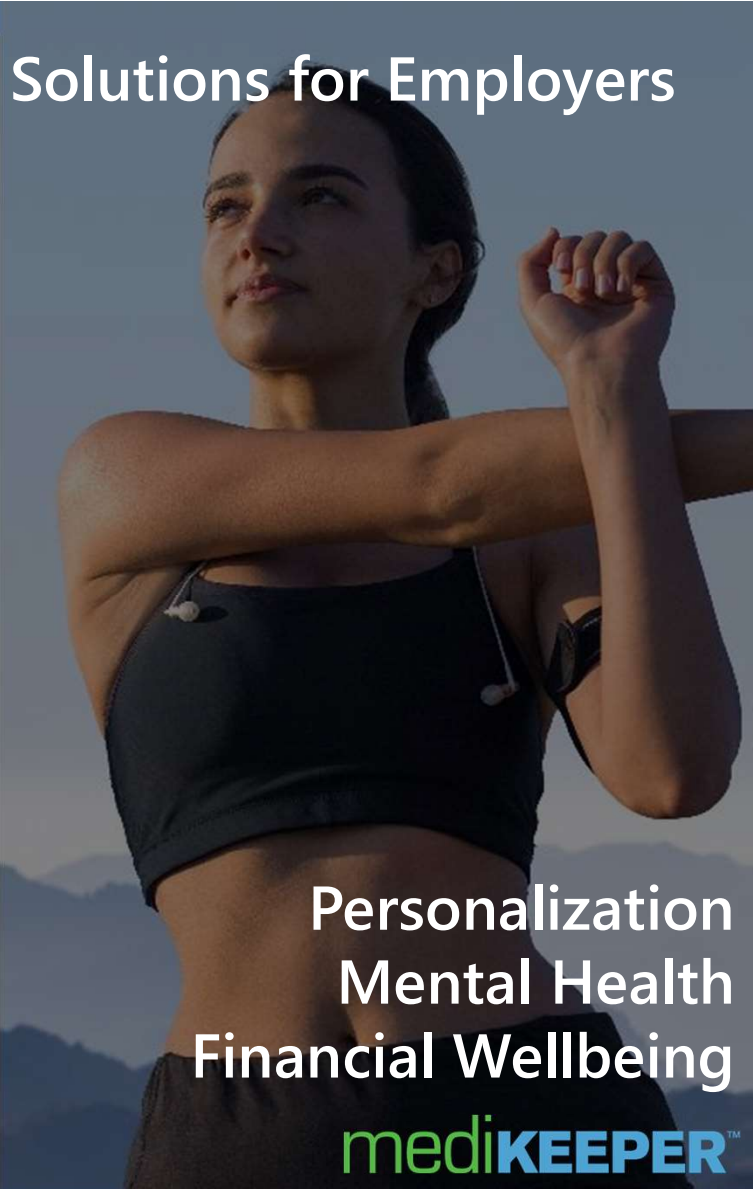


Validity
Reliability
Timeliness
Completeness
Meaningful

Implications for
Action if Data are
Invalid? Out of Date?
Incomplete?



Practical Well-Being Solutions for Employers



Personalization
Mental Health
Financial Wellbeing



Primary Prevention

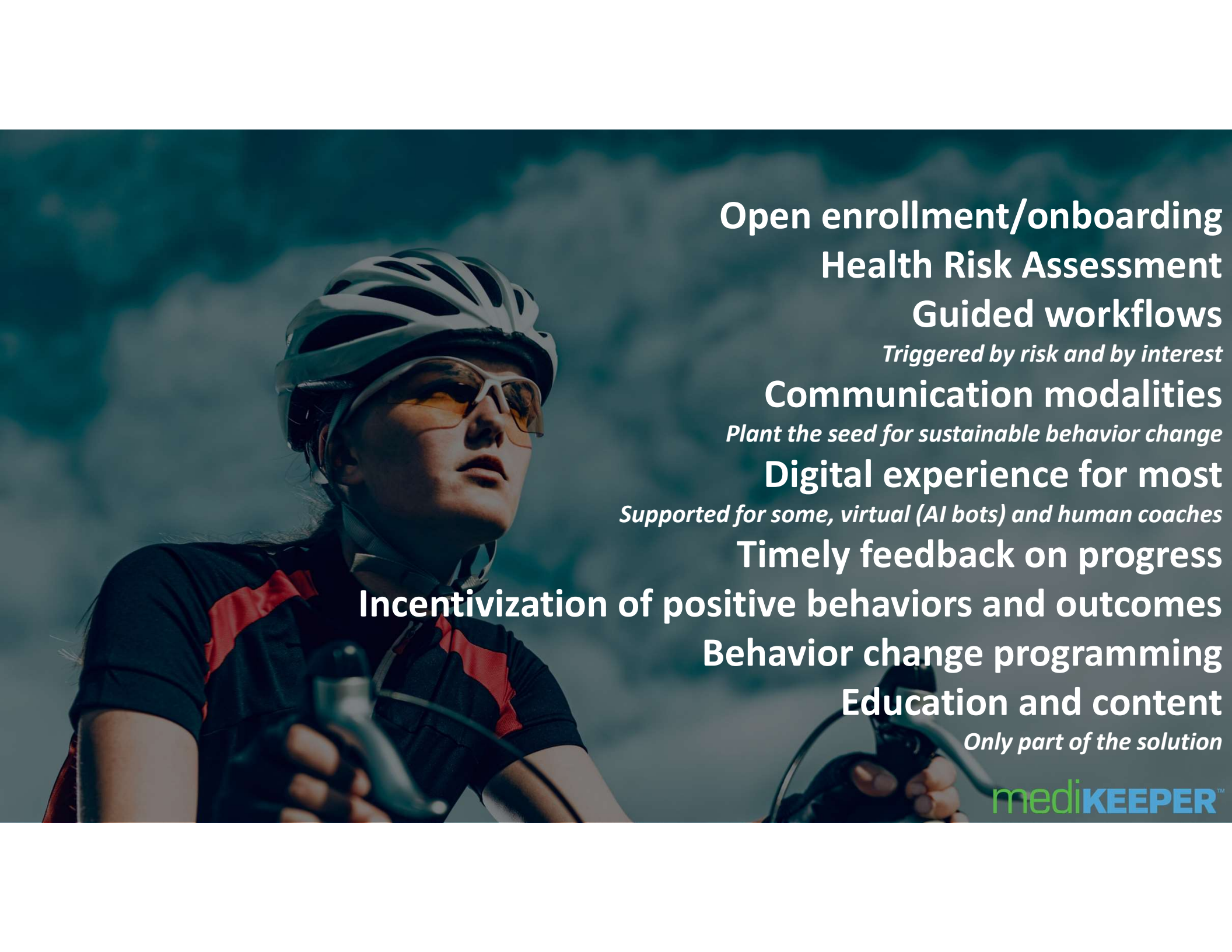
Risk identification, lifestyle factors, triggered personalized programming (digital and virtual), self report & wearable tech or combination, culturally and generationally sensitive approaches

Secondary Prevention

Biometrics at home or onsite, genetic screening, healthy pathway correction

Tertiary Prevention

Disease management, healthy pathway maintenance, workplace accommodations



Open enrollment/onboarding

Health Risk Assessment

Guided workflows

Triggered by risk and by interest

Communication modalities

Plant the seed for sustainable behavior change

Digital experience for most

Supported for some, virtual (AI bots) and human coaches

Timely feedback on progress

Incentivization of positive behaviors and outcomes

Behavior change programming

Education and content

Only part of the solution

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Some Technology Considerations

Build, Rent or Buy
Security
SaaS / On Prem
Hosting Location
Mobile First
Responsive Design

Ease of Use
User Experience
Guided Workflows
Outcomes
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A person is seen from the side, sitting in a red canoe on a body of water. The person's hand is resting on the edge of the canoe, touching the water. In the background, there are mountains and trees under a clear sky. The overall scene is peaceful and scenic.

Health Improvement Outcomes

Does the data demonstrate:

Are the users/people ready to change?
Sustainable changes in lifestyle behaviors?

Improvements in diet, exercise, sleep,
hydration, tobacco & alcohol use

Measurable improvements in
biometric markers of modifiabiles?

**Does your wellness program match your technology,
or does your technology match your wellness program?
There are pros and cons to each.**

Configurability

Customizability

Flexibility

Scalability

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A person in a red jacket is running on a dirt path, and a person on a bicycle is riding alongside them. The background shows a hilly, natural landscape under a clear sky.

Ask yourself how can technology to be leveraged to improve....

User experience in the wellness programming

Enhancing utilization, engagement

**Internal manual processes
(excel is not an award-winning wellness technology)**

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A silhouette of a person standing on a mountain ridge, looking out over a vast landscape of rolling hills and mountains under a warm, golden sky at sunset or sunrise. The person is positioned in the lower right quadrant of the frame, facing away from the viewer.

**If your wellness program does not
have strong technology,
it will be left behind.**

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Thank You.

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Biological Information



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Dr. Tyler Amell is an internationally recognized thought leader on the topic of workplace health and productivity. When he is not speaking at events around the world, he is a trusted advisor to organizations, including insurers, service providers, and employers, on strategic and integrated workplace health and productivity.

Dr. Amell is Chief Health and Strategy Officer at MediKeeper, a wellness technology company. He is also Faculty and Registrar at Pacific Coast University for Workplace Health Sciences and Faculty Lead for Work and the Workplace. He has given keynote addresses, seminars and plenary presentations at over 275 events around the world.

He also serves on the Executive Board of Directors of the National Wellness Institute (NWI), the Work Wellness Institute (WWI), and in the past the Integrated Benefits Institute (IBI) and the Canadian Association for Research on Work and Health (CARWH). He is a past CRO/CHO at a wellness technology company, a Partner/Vice President at a global HR consulting & technology company, CEO of a HR technology company, and Vice President of a large Healthcare and Rehabilitation company. Dr. Amell has recently contributed to events and publications of the AMJHP, IBI, Art & Science of Health Promotion, HERO, the Disability Management Employers Coalition (DMEC), the International Foundation of Employee Benefit Plans (IFEBP), Canadian Mental Health Association (CMHA), the Conference Board of Canada, the Occupational and Environmental Medical Association of Canada (OEMAC), the Canadian Board of Occupational Medicine (CBOM), and the Occupational Medical Society of Canada (OMSOC).