

# WHAT'S YOUR AI ACUITY?

— SHARPENING A VISION FOR THE FUTURE —



## Experts Explain AI's Growing Impact on Optical at VM Summit

NEW YORK—The 17th annual Vision Monday Leadership Summit began with a greeting by James DeMatteis, publisher of *Vision Monday* and *20/20 Magazine*, and Anne Cooper, editorial director of *Vision Monday* and *20/20 Magazine*. DeMatteis kicked off the VM Summit saying, “When we originally chose the topic: ‘What’s Your AI Acuity-Sharpening a Vision for the Future,’ in April 2023, we knew that AI was already a very hot topic, but I don’t think anyone could have predicted how quickly AI has thrust itself into the forefront of so many different facets of our businesses and our lives.”

Cooper echoed DeMatteis’ enthusiasm: “We are in an exciting time, as AI continues to impact our ever-evolving marketplace and landscape. As you may know, I am not new to health care publishing, but I am a newcomer to the vision industry—and the VM Summit is an amazing place to start this journey.”

Then two of the Summit’s planners, Marge Axelrad, editorial director emeritus, *Vision Monday*, and Andrew Karp, group editor, lenses & technology, *Vision Monday*, framed the conversation about AI with some broad observations.



Jobson's James DeMatteis and Anne Cooper welcomed attendees to the VM Summit and both executives emphasized the potential power and impact of AI on our ever-evolving marketplace.

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## VM Summit Offers Up a Roadmap for Navigating AI

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Assuring attendees that “Our words are not scripted by generative AI,” Axelrad joked that she and Karp were real people, not AI-generated avatars. Turning serious, she observed that “artificial intelligence is blurring the lines between what’s real and what’s not. As we interact more with chatbots and other AI-generated voices and images, it’s important to know who, and what, we’re dealing with.”

Karp pointed out that being able to discern AI-generated content, whenever possible, is a new skill that’s needed for navigating the landscape of today’s AI-driven, digital world. He observed that although we are barraged by media coverage of AI and how it is reshaping our world, and our perceptions, it’s important to remember that we’re still in the early days of this powerful new wave of technology.

“There’s a lot that’s known about it, but even more that’s unknown about AI’s vast capabilities and potential for changing our world, for better or worse,” Karp said.

Looking back at past VM Summits, Axelrad remarked that the program always addresses the advent of new technologies and fresh thinking that creates competitive advantages and challenges. “As we’ve done across 16 VM Leadership Summits, we’re bringing you leading edge perspectives to frame the questions you need to ask about your business or profession, and how today’s top tech trends are affecting you, your teams and customers.”

Axelrad then asked attendees to watch out for three short videos called “AI Snaps” that appeared at various points throughout the program. The videos, which were produced specially for the VM Summit by innovative digital filmmaker, CoffeeVectors, illuminate AI’s growing influence in product design, personal assistant technology and neuroscience.

Karp then offered attendees a few takeaways. He observed that AI is emerging in many forms, including machine learning, large neural networks and generative AI based on large language models, and



Jobson’s Andrew Karp and Marge Axelrad framed the conversation about AI with some broad observations and reassured attendees that we are still in the early days of this powerful new technology.

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— Anne Cooper

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— Marge Axelrad

**“A lot depends on how we respond. We can celebrate the scientific and technological progress that AI brings, but we must also protect ourselves from bad actors. Controlling AI systems may ultimately depend on whether or not we can align machines with human values.”**

— Andrew Karp

it’s emerging at astonishing speed.

“It’s easy to feel overwhelmed by the magnitude of change we’re experiencing, especially when you consider that AI can be a powerful force for good or it can be devastatingly destructive, depending on who is wielding it and for what purpose,” said Karp. “A lot depends on how we respond. We can celebrate the scientific and technological progress that AI brings, but we must also protect ourselves from bad actors aiming to invade our privacy, peddle false information and impose social controls.

“Controlling AI systems may ultimately depend

on whether or not we can align machines with human values,” Karp concluded.

Axelrad’s and Karp’s comments set the stage for Samantha Jordan, a consultant with the Future Today Institute, who brought her unique take on how technology is unfolding to create new opportunities and approaches for business leaders.

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— VM Staff

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## Keynote Speaker Asks Are You Optimistic About the Future of Artificial Intelligence?

NEW YORK—Samantha Jordan, head of computing and technology at the Future Today Institute (<https://futuretodayinstitute.com/>), doesn't predict the future. Instead, she and her group utilize what they call strategic foresight, a disciplined and systematic approach to identify where to play, how to win in the future, and how to ensure organizational resiliency in the face of unforeseen disruption. The proprietary strategic foresight methodology is intended to enable organizations to plan for unpredictable futures with certainty.

"We don't actually predict the future," Jordan told the audience of optical business leaders, industry executives and eyecare professionals as the keynote speaker at the 2024 VM Leadership Summit in New York that focused on artificial intelligence. "I model multiple, plausible versions of the future. That way, a business that we work with can look at those multiple futures and decide what they need to do to be prepared for any of those futures. Really what we do is much more about preparation than prediction."

She said, "Our goal is to help you prepare for the future by how you bring value to your patients and your clients in the age of artificial intelligence. We're going to focus on how AI is reshaping health care, how you can use some of these technologies for diagnostics and the treatment of eye disease."

Jordan began her presentation with an AI primer, then worked her way through two insights from the recently released 2024 FTI trend report, before concluding with two "what-if" scenarios about the future of AI, one pessimistic and the other optimistic.

"Our world feels a bit rocked by artificial intelligence," Jordan said. "AI is a broad category of technology. When we say AI, there's a lot of things we can mean. Generative AI systems not only sense and understand the world but can also generate new, textually aware content, concepts and ideas while communicating with us. And the reason it can do so is because of the 'T' in GPT."

"The 'T' is important. It stands for 'transformer.' The transformer architecture excels at understand-



*Futurist Samantha Jordan encouraged the audience to look 10 years into the future and ask themselves "if they were optimistic or pessimistic about the future of AI" and how they would advise their patients or clients.*

ing the context and sequence of words, making it particularly well-suited for tasks that require understanding, interpreting and generating human-like text." Jordan shifted to address how AI is developing the ability to reason. She referenced her first insight from the 2024 FTI trends report, where she noted that "2024 is the year we move past the uncanny valley."

"If you're not familiar with this concept, this is basically a concept where a humanoid object that looks almost like a real human, but not quite, can make us feel uncomfortable." She also noted that "surpassing the uncanny valley means new threats but also new opportunities to forge connections. The application of the technology matters and changes whether it's an opportunity or a risk."

The second insight from the FTI trends report Jordan spoke about was how 'AI will know us inside and out.' 'AI doesn't just ingest textual data, it ingests images, sounds, videos and biometric behavioral patterns that are subconscious,' she said. She also stressed that in a world of deep fakes, it's how you apply AI technology that matters most.

Jordan closed her presentation by encouraging

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— Samantha Jordan

the audience to look 10 years into the future and ask themselves if they were optimistic or pessimistic about the future of AI and how they would advise their patients or clients.

She warned that a pessimistic view of AI in 2034 may lead to the deterioration of patient relationships, the erosion of trust and privacy as a thing of the past. Conversely, an optimistic view of the future in 2034 could include AI enabling more accurate diagnoses and personalized treatment of patients, rural areas that previously lacked sufficient physical coverage could now be equipped with remote examination tools, and a breakdown of cultural barriers which would allow communication with your patients in whatever language they speak.

"This is where we go from sci-fi to reality," Jordan said. "This is where you go back to your teams and figure out what you are going to do next. And whether we have a pessimistic version of the future or an optimistic version ultimately depends on the decisions you and I make around how we apply the technologies we spoke about today." ■

— Daniel Breeman, Senior Editor

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## Analyst Deborah Weinswig Reveals How AI Is Changing the Face of Retail

NEW YORK—Following Samantha Jordan's talk, Deborah Weinswig, founder and CEO of Coresight Research, took the Summit stage. Weinswig's Coresight Research <https://coresight.com/>, is one of the world's leading retail observers and analysts, and she spent her time with the Summit audience sharing her views on how AI is changing the retail space, including how retailers can effectively and creatively apply AI technology in their storefronts and online.

When it comes to using AI, Weinswig underscored the importance of business leaders trying it out for themselves before rushing to utilize it in the workplace. Once AI technology is in use in the workplace, it's vital to ensure that it's being used responsibly, that the proper guardrails are in place, and to ensure that there is a workplace AI policy ready to go.

This, she said, is easier for smaller companies than large ones: "In the beginning, the benefits [of using AI] will accrue to the small [companies], because from a compliance perspective, you have a lot less to ring-fence than your very large retailer."

One important use of generative AI, Weinswig said, is "the compute power," when it comes to gathering data from various sources. She said, "What we hear from many retailers is that there's data... Maybe you have a chat bot... or customer service. There's data there. You have returns: there's data there. You have a loyalty program: there's data there." By using AI and machine learning, that data can be turned into what Weinswig called "rapid fire foresight" that will aid businesses in handling their future.

Internally, there are advantages to utilizing AI as well. Weinswig discussed her team in Lagos, Nigeria, who uses AI in human resources. She said, "[AI is] doing a lot in HR; I've actually learned a lot on human resources from our team there... they can predict: what is the employee

who is, say, at risk of leaving? Who needs training? Who needs a mentor? This is just based on some of the data of the interactions with different HR systems. But we are able to really think differently about our organization."

In retail, the potential of AI use is almost infinite. Weinswig cited a number of retailers who are using AI technology to get closer to the customer and craft a better, more convenient experience for them. One of these is Walmart, Weinswig said, which uses AI in its Walmart Pay self-checkout system to make the process of checking out quicker and easier—and, in turn, allows the customer to spend more time shopping. She also cited a similar experience at a local Circle K, with its Smart Checkout system.

Weinswig explained that many clothing stores also utilize AI and virtual try-on to personalize the customers' shopping experience, from AI-powered models on Stitch Fix that show users how clothes will fit to dressing rooms with screens and avatars that help customers choose sizing and styles to try on. Weinswig also discussed AI use in the supermarket industry, where organizations utilize it to eliminate food waste, reduce shrinkage and improve overall outcomes. She summarized, "If we can truly start to improve outcomes [using AI] we can truly start to make this all about personalized experiences."

After discussing the many uses of AI within retail, Weinswig left the Summit audience with the challenge of experimenting with AI for themselves and remembering that this technology can be just as fun as it is useful. She said, "The challenge I want to leave with all of you is this: experiment. Do it in a place that's safe... it can be fun." Finally, Weinswig said, "There's a huge opportunity, but, once again, there is huge responsibility."

—Gwendolyn Plummer, Senior Associate Editor



Coresight Research's Deborah Weinswig cited a number of retailers who are using AI technology to get closer to the customer and craft a better, more convenient experience for them.

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— Deborah Weinswig

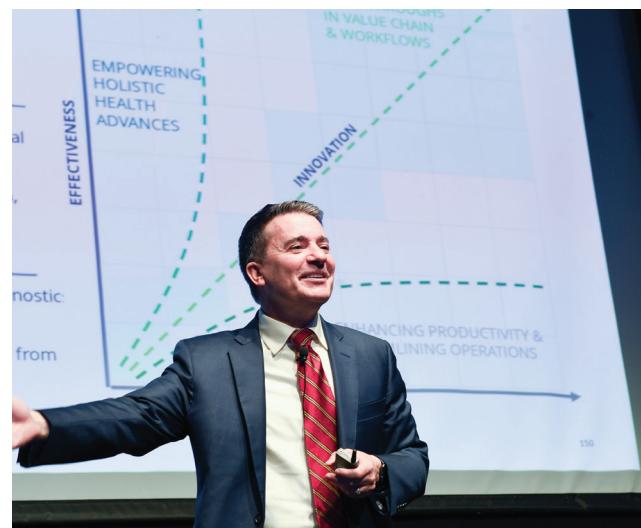
## Using AI to Improve Health Care and Vision Care Outcomes

NEW YORK—John Whyte, MD, MPH, WebMD's <https://www.webmd.com/> chief medical officer and one of the most influential voices in the health sector, discussed how patients are learning to trust chatbots, how doctors are integrating generative AI into their practices, the need for transparency and other practical aspects of AI implementation. During a session titled, "How AI Is Reshaping the Future of Health Care," Dr. Whyte said, "AI is a work in progress, and we have just started to scratch the surface of how we can use AI to improve health care and vision care outcomes."

Dr. Whyte described some of the computing and artificial intelligence milestones, starting with the analog era of the 1940s-1960s, when the first primitive computers performed specific calculations and accelerated basic problem solving. The 1960s-1980s were the experimental era, when the emergence of integrated circuits and mainframe computers allowed for flexible programming and the demonstration of the first natural language processing systems.

The knowledge era of the 1980s-2000s was known for expert systems, mimicking human expertise and decision-making that paved the transition to modern machine learning techniques. And finally, the modern era, the 2010s to the present, saw big changes as commoditization of computing, availability of big data, and the development of neural networks, deep learning and machine learning techniques, large language models and generative AI ushered in the modern AI revolution.

Dr. Whyte cited examples of AI, ranging from IBM's Watson artificial intelligence platform outperforming top "Jeopardy" contestants in 2010 to today's self-service tools, such as ChatGPT and MidJourney, that have given consumers access to basic generative AI capabilities.



*WebMD's John Whyte, MD, called on the medical and optical communities to take on a leadership role in identifying AI technologies and processes that will work in the health care sector.*

He said, "AI has provided us with the opportunity to impact the health care and vision care journeys." Dr. Whyte observed that according to a recent White House executive order on AI and health care, "there will be no new regulations on the horizon." He called on the medical and optical communities to take on a leadership role in identifying AI technologies and processes that will work in the health care sector. "We need a Sherpa to take the lead on how we can best use AI," he said.

"The patient experience is changing as people use the internet to research their conditions online before they even get to a doctor's office. The power of generative AI is changing the process and the doctor-patient relationship," he said.

He pointed out that when it comes to the health care sector, AI is being used in many ways, including:

- To direct patients to the right specialists.
- To provide the appropriate triage procedures, diagnosis and treatments for patients.
- To help with appointment follow-ups and scheduling.
- To provide personalized care and simplify communications.

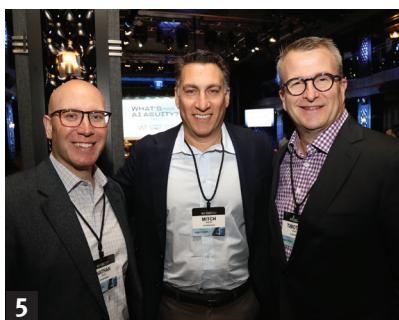
Dr. Whyte encouraged the audience to "engage with the AI technology, download the apps and try them out. Now is not the time to take a wait and see attitude."

He concluded, "The opportunity to impact the relationship between health care and AI is now. The AI technology is moving quickly, and the tools will only get better." ■

— Mary Kane, Executive Editor

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## Scenes at the VM Summit



**1.** VSP Vision's Michelle Skinner (l) and Michael Guyette (r) with EssilorLuxottica's Fabrizio Uguzzoni.

**2.** Advancing Eyecare's Jim McGrann (l) and David Spear (r) with Dorothy Hitchmorth, Percept Corporation.

**3.** (L to R) Leo Mac Canna, Ocuco, Jobson's Andrew Karp and VSP's Sean Cooley and Marchon's Andy Skitmore.

**4.** (L to R) Alcon's Kristin Anderson, Megan Chittenden and Mike McAvoy.

**5.** (L to R) The Vision Council's Nathan Troxell, Mitch Barkley and Allure Eye-wear's Timothy Swartz.

**6.** (L to R) Karen Roberts, Carl Zeiss Vision, Darren Horndasch, Wisconsin Vision, Inc., David Pierson, The Vision Council and Kirk Lauterback, Shopko Optical.

**7.** Glenn Reisch, Luxury Optical Holdings (l) with Tim Mayhew, Keplr Vision.

**8.** (L to R) Luca Zuliani, Vision Source, Ross Brownlee, Hilco Vision, Jobson's Marc Ferrara and Stuart Jolly, Jolly Good Consulting, Inc.

**9.** MyEyeDr.'s Sue Downes (l) with Big City Optical's Rasa Tamulavichus, OD, and Michael Kogelis.

**10.** (L to R) Emily Mancini, Vision Service Plan, Thomas Burkhardt, Marchon Eye-wear and Kathleen Lovett, VSP Vision.

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1. (L to R) Maureen Cavanagh, Advancing Eyecare, with New England College of Optometry's Howard Purcell, OD, and Gary Chu, OD.



2. Zeiss' Carolyn Bosworth and Brent McCardle.



3. Jim Caster (l), VSP Vision with Gregg Ossip, OD.



4. (L to R) Larry Macapagal, OD, Vision Essentials by Kaiser Permanente, with Kaiser Permanente's Mark Carmona and Susy Yu, OD.



5. (L to R) Donna Mikulecky, OD, Vision Source, National Vision's Megan Molony and EssilorLuxottica's Ludo Ladreyt.



6. (L to R) Victoria Hallberg, VHE, Howard Fried, DigitalOptometrics and Gary Chu, OD, New England College of Optometry.

7. David Pierson (l), The Vision Council and Cynthia McWilliams, Ogi Eyewear.



8. (L to R) Jobson's Dennis Murphy, Marge Axelrad and Marc Ferrara.

9. Maria Sampalis, OD (l), Sampalis Eyecare and Glenda Aleman, OK Love Myopia Control Experts.

10. Josephine Pepe, OD (l), Ontario Associates of Optometry and Tommasina Sideris, OD, Eyes On Litchfield.



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## 4 Eye Doctors Discuss How to Use AI as a Tool for Disease Detection, Diagnosis and Treatment

NEW YORK—In keeping with its objective of providing a platform for new ideas in vision technology and eyecare, the Vision Monday Leadership Summit brought together, for the first time, four prominent eyecare researchers and practitioners for a high-level discussion about how artificial intelligence can be an important tool for disease detection and diagnosis, and then improve outcomes through early intervention.

Paul Karpecki, OD, FAAO, director of cornea and external disease for the Kentucky Eye Institute <https://kyeye.com/> and chief medical editor for *Review of Optometry* <https://www.reviewofoptometry.com/>, kicked off the session with a presentation that focused on AI's potential to enhance diagnostic accuracy, identify disease, increase efficiency and provide better treatments across a broad range of medical conditions. "AI can actually pick up unperceived images and findings," said Dr. Karpecki. He noted that there are now AI platforms that use retinal scans to not only identify ocular diseases, but also to detect non-ocular diseases such as Alzheimers and cardiovascular disease.

Another benefit of AI is that it can alleviate the burden on the health care system by automating routine screenings and preliminary diagnoses, Dr. Karpecki said. It can also help address unmet needs in eyecare and beyond by improving the delivery of care to underserved populations.

"Twenty-five percent of counties in the U.S. don't have an optometrist or ophthalmologist," Dr. Karpecki observed. He said that integrating AI with remote care can help compensate for the shortage by allowing medical expertise to be shared in key categories. "By integrating AI, we'll be able to deliver expertise worldwide, and provide better access in underserved regions."

AI can also simplify and expedite certain daily tasks that can lead to physician burnout, Dr. Karpecki said. "If you're spending 60 percent of your time clicking in front of a computer with your back to the patient, I would burn out. We have to get AI to help us get to the next level of where we need



*Review of Optometry's Paul Karpecki, OD, said AI can help address unmet needs in eyecare and beyond by improving the delivery of care to underserved populations.*

**"Twenty-five percent of counties in the U.S. don't have an optometrist or ophthalmologist. By integrating AI, we'll be able to deliver expertise worldwide, and provide better access in underserved regions."**

— Paul Karpecki, OD

to be," he remarked.

Integrating AI into an eyecare practice has non-clinical benefits as well, Dr. Karpecki noted. "When you're trying to sell spectacles, contact lenses or sunglasses to a patient, AI can help you understand what their likes are. It fits into everything that we do."

He proposed that "augmented intelligence" is a more useful term than AI because "we can learn a lot by combining our knowledge and our expertise with Machine Learning and Deep Learning. An AI platform can take us to the next level. That's where the future will be. And that's why ac-

celeration is going to happen in AI."

Pearse Keane, MD, a consultant at Moorfields Eye Hospital in London and professor of artificial medical intelligence at the Institute of Ophthalmology at University College London, followed with a pre-recorded video presentation in which he emphasized how eyecare is being transformed by AI. Dr. Keane, who leads a multidisciplinary clinical research group that aims to develop and apply AI in health care, said that "ophthalmology and optometry, and eyecare in general, have been at the forefront of this coming wave of AI-enabled health care. Our key idea is that we use ophthalmology as an exemplar for other medical specialties in this regard."

Dr. Keane summarized the pioneering research program at Moorfields, <https://www.moorfields.nhs.uk/> one of the largest eye hospitals in the world, which began in 2015 when Dr. Keane initiated a collaboration between Moorfields and the AI company, Google DeepMind. Since then, he and his colleagues have been investigating how

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## 4 Eye Doctors Discuss How to Use AI as a Tool for Disease Detection Diagnosis and Treatment

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AI can accurately analyze OCT scans to detect early signs of retinal disease. "This has the potential to save the sight of millions of people," said Dr. Keane. "We're still very much in the early stages of this journey. We have now completed the first phase of going from an idea to an algorithm, but the next phase, the longer phase, is about going from code to clinic."

Dr. Keane described how Moorfields is spearheading a pioneering program known as "oculomics," which he described as "the idea that we can use AI as a window to systemic health." He said researchers have shown that it's possible to determine a person's sex and more by analyzing a retinal photograph using an artificial intelligence technique called deep learning. "You could predict the age of the patient just from a retinal photograph," said Dr. Keane.

"You could say whether someone smokes or not, whether they've got diabetes or not. You can even give a pretty good measurement of their blood pressure directly from a retinal photograph. That suggests to us that there's a lot of biological information that is actually still locked within these high dimensional images. And maybe, with the right tools and the right techniques, we can begin to tease that to actually get new insights and develop new treatments for these patients. I think this could be a real game changer."

Dr. Keane said Moorfields is working on developing a program in the U.K. aimed at creating a large, national database that integrates data from OCT scans with other health care data, creating a comprehensive picture of a patient's health. "I'm really excited about the promise of world-class care, empowering ODs and other ECPs," he said.

Next James Tsai, MD, MBA, head of the newly established Center for Ophthalmic Artificial Intelligence and Human Health <https://icahn.mssm.edu/about/departments/center-ophthalmic-ai> at the Icahn School of Medicine at Mount Sinai, described the new research that he and his col-



(L to R) Three leading eye doctors, Paul Karpecki, OD, James Tsai, MD, and Alex Martin, OD, discussed how the future of eyecare will involve the potential for AI to enhance diagnostic accuracy, identify disease, increase efficiency and provide better treatments.

**"This has the potential to save the sight of millions of people. We're still very much in the early stages of this journey. We have now completed the first phase of going from an idea to an algorithm, but the next phase, the longer phase, is about going from code to clinic."**

— Pearse Keane, MD

leagues are doing in the field of oculomics, which studies the microscopic/macrosopic and molecular biomarkers in eye disease that can be associated with systemic disease.

"Oculomics is a big deal," said Dr. Tsai. "The National Eye Institute just announced that they're dedicating at least \$5 million to research projects over the coming years in oculomics."

Dr. Tsai cited new research by a colleague, Dr. Ted Smith, that shows that patients with macular

degeneration have SDDs (Subretinal Drusenoid Deposits) that are associated with cardiovascular disease or stroke. "These patients are three times more likely to have SDDs," said Dr. Tsai. So SDDs may be a risk factor for underlying disease in asymptomatic patients.

The research shows that SDDs are strongly associated with the severity of heart disease as measured by functional tests such as cardiac index and loss of choroidal and outer retinal perfusion. Severe systemic vascular disease may be a mechanism for the SDD form of AMD. This ocular finding may help guide us in the detection of patients with severe cardiovascular, and maybe renovascular diseases."

Praising AI's diagnostic capabilities, Dr. Tsai cited new research by other colleagues showing that large language model's responses to questions and cases about glaucoma and retinal management were as good or even better than the

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## Deloitte's Jim Rowan Offers Strategies on Building an AI Team

NEW YORK—Heading into the afternoon sessions and before a break for lunch, Jim Rowan, principal at Deloitte Consulting LLP, [https://www2.deloitte.com/us/en/services/consulting.html?icid=top\\_consulting](https://www2.deloitte.com/us/en/services/consulting.html?icid=top_consulting) shared his insights into how to weave AI into daily business operations. In his presentation titled, "How to Build an AI Team," he noted that generative AI is transforming the way the optical industry does business, from diagnostics to managing patient interactions and marketing, suggesting that AI is seemingly making it easier to enhance the patient experience.

Efficiently adopting this technology means having a team that understands how to utilize AI in a way that will drive business growth, he said. He drew from the latest research from Deloitte's annual report, *The State of Generative AI in the Enterprise*, which looks beyond the IT department and focuses on building a culture of AI through propagating change and developing the right skill set.

Rowan offered both practical and theoretical approaches to building an effective AI team, noting that this can be achieved by combining both existing and new skills for long- and short-term solutions, and he surmised that businesses are onboard with AI adoption but are concerned about safe integration.

"What we've...seen is that organizations are starting to get a bit more concerned about the risk of governance and the talent associated with this as the new technology," he told those in attendance. "Most of us are already using generative AI today, or AI technologies, in our day-to-day activities. You might not even know some of the companies that are out there."

Even activities as simple as placing a call to a call center are now run through AI, according to Rowan, who added that the prevalence of AI is raising alarm bells with both consumers and



*Deloitte's Jim Rowan offered both practical and theoretical approaches to building an effective AI team.*

businesses.

"We're really concerned about the negative impact on society. Where are the jobs going to go?" he said, adding that there is also concern about how AI can be used in a manipulative way. "Is there a bias in the model that someone has built? How are you protecting yourself from that? Have you defined governance procedures and policies within your organization? Are you sending data to a cloud provider? Are they using that to train their models?"

All these questions, Rowan added, need to be answered when developing procedures and infrastructure within organizations so that both customers and employees are safely engaged with the technology. He believes these are the tools necessary to get buy-in within an organization.

"You need to have a plan or process in place to figure out how you're going to get your work-

force along on that journey. A lot of times, what we see in this conversation is that it's a very IQ-driven conversation in the workforce. What we're missing in that conversation is the EQ [emotional quotient] dimension," he said. "What does this mean to me? How am I going to feel about this new technology? What does this actually do? Am I nervous? How am I going to deal with that situation?"

Rowan said many organizations tend to focus on the engineering of AI without thinking about what individuals themselves are going to experience. He noted that many people at the Summit and in business will soon find themselves in the position of either being subject-matter experts, advisors, guides or consumers of AI technology. "Or, you're a part of an institution that's trying to roll out this technology. You want to understand how to build more effective teams for the future."

Before adopting AI, Rowan suggests businesses go at their own pace and skill set, bringing in the right people with the know-how to move adoption forward. This includes management taking a leading role in embracing AI technology.

"I think leading by example is super critical to the organization, saying we're willing to adopt this, and you're developing and showing your intellectual curiosity on the topic," he said, suggesting that creating incentives for adoption is another way to build buy-in, such as having learning and development on-site when possible. "One of the things we found as a side benefit is a lot of the best innovation is happening closest to where the work is being done."

Rowan said that fostering this culture of innovation within your business structure will enhance the ongoing development process and spark innovation, and that creating a center of excellence within your organization is one of the key things a company can do to ensure successful integration. Not only is this a way to begin collecting talent



and building skill sets within your organization, he said, but this also develops a centralized democratization of access to information.

Emphasizing the importance of bringing human capabilities into the problem-solving process, Rowan noted that throwing engineers onto a team is not necessarily the right way to solve the AI equation.

"There are a lot of these human capabilities that you really try to encourage organizations to think about as they build these processes and make sure they're both cross-functional," he said. "It's very important as we think about those soft skills. You can start looking at things that humans do extremely well and start figuring out how to amplify that within the organization."

The Deloitte study found that while clearer an-

swers in relation to AI adoption and implementation are still emerging, organizations should press on to keep pace with competitors. Rowan noted that businesses should be cautious when investing and conduct research before committing to any platform or technology.

"Your ability to invest might be hindered by your ability to get access to some of the platforms you need to innovate around," he said, encouraging businesses to develop a strategy upfront and work with IT leadership to determine which vendors are right. "I encourage more of that centralization of the new things. We have to always be really careful about our patient data and other information."

*— Sarah McGoldrick, Contributing Editor*

**"You need to have a plan or process in place to figure out how you're going to get your workforce along on that journey. A lot of times, what we see in this conversation is that it's a very IQ-driven conversation in the workforce. What we're missing in that conversation is the EQ [emotional quotient] dimension. What does this mean to me? How am I going to feel about this new technology? What does this actually do? Am I nervous? How am I going to deal with that situation?"**

**— Jim Rowan**

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## 4 Eye Doctors Weigh In on How AI Can Track Health Care Outcomes

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specialists. "This study accentuates ChatGPT's incredible proficiency in diagnostic accuracy and completeness compared to fellowship-trained ophthalmologists in various clinical scenarios," he said, adding that "a seasoned clinician could do better employing ChatGPT."

Noting that "the eye is the window to the heart," Dr. Tsai said he believes there is "incredible potential to truly help in revolutionizing cardiac function monitoring through non-invasive ocular imaging combined with AI and mathematical modeling for early detection and follow-up of cardiac diseases."

He also said that AI can be a powerful tool to diagnose potential visually disabling eye conditions, such as central retinal artery occlusion, quickly and accurately. "AI will make us make us better, more compassionate clinicians," he concluded.

Dr. Tsai then joined in a discussion, moderated by Dr. Karpecki, that included Alex Martin, OD, a medical director for Boston Vision <https://www.bostonvision.com/> in Lawrence, Mass. Asked by Dr. Karpecki to describe how AI will impact the delivery of vision care, Dr. Martin discussed his work developing an information "library" to train a vision kiosk located in a public space. The kiosk would collect diagnostic data that could then be analyzed with AI.

"A lot of the research we're doing is about diabetic disease, glaucoma and macular degeneration, and we're going to fine-tune that over time," said Dr. Martin. "Long term, we'll be trying to get the people who don't come into our clinics every year and figuring out how to get them to come in. And once they're referred, we'll need to see if we agree with the AI diagnosis, or are we going to come up with a different solution?"

"A patient might say, 'I've been screened somewhere else, and I think I have this condition.' As eye doctors, we might respond by saying, 'I understand where the machine picked that up, but here's where you actually are. Here's what we



Dr. Pearse Keane and his colleagues have been investigating how AI can accurately analyze OCT scans to detect early signs of retinal disease.

can actually do about it. Let's have a much more engaged conversation instead of just coming in once a year for an annual eye exam. Being able to have these conversations puts us back in the compassionate role."

Dr. Tsai agreed, noting that patients are "yearning for more information. "They'll take all the data they get during our office visits and search it online when they get home. Then they'll ask for a lot more information. Our challenge is how do we utilize AI to make them feel comfortable that we understand them as a whole person."

Dr. Karpecki pointed out that the big advantage of AI for many doctors today is to eliminate the things they don't want to do as clinicians, such as collecting and entering data into a patient's electronic health record. He asked, "What are some of the opportunities for AI to relieve burnout among practitioners?"

Dr. Martin, who said he sees 40 patients a day and has a three-month waiting list, replied, "Having AI is going to help us be more responsive, bring the right people in and filter the people that could wait a month, like that myope who was a minus 2 last year and the year before, and will still

be a minus 2 next year. I really want to see that 30-year-old glaucoma patient who has a pressure of 35 and it's been that way for who knows how long. Being able to readjust who we see and at what time points is going to be critical."

Dr. Tsai and Dr. Martin were then asked what advice they would give Summit attendees about where they should focus their efforts when integrating AI into their practices and businesses. Dr. Martin recommended that attendees try as many different AI products and software options as possible to get a firsthand feel for it. "There's a lot of opportunity that's out there. If you can be a part of the conversation, you can help build libraries. We're only going to be as good as our libraries are going to be."

Dr. Tsai replied, "One of the hopes of AI is being able to reduce disparities in health care. Make sure that these technologies are easy to use. Recognize that there are differences in access to broadband and other features. And remember the person who's in an underserved community and try to design products they can utilize." ■

— Andrew Karp, Group Editor, Lenses & Technology

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## RSG's Liza Amlani on Finding the Balance Between Tech and the Human Touch

NEW YORK—One of the greatest challenges businesses face in today's age of artificial intelligence is finding the right balance between technology and human interaction. Hitting on this equilibrium was the focus of Liza Amlani's session with her lunchtime presentation titled, "Keeping the Customer In Focus: Clienteling for Retail Eyewear." As the principal and founder of the Retail Strategy Group, <https://www.retailstrategygroup.com/>, Amlani has used her experience to help businesses improve profitability and organizational effectiveness by using the latest technology and most provocative retail trends.

Despite a wealth of technology available to retail businesses these days, Amlani began her talk with a simple statement: technology alone will not solve anything. She believes that businesses still must focus on one-on-one interaction with customers in order to understand buying habits and trends, by using technologies such as AI to complement rather than dominate the customer experience.

"What you are going to have to do is have the right balance of touch and technology," she said, noting that problems such as inventory management, planning, marketing and digital integration will all have to "marry up" with touch. "The more technology is introduced to us, the more we're going to value human touch," she said.

Amlani said this is the key to driving engagement with customers and tailoring the shopping experience to their needs, noting businesses need to know why customers are making a purchase.

"What we have to do as a retailer, as store owners, as optical owners, is understand why that purchase is personal," she said. "We are in the business of selling. We are in the business of making a profit. So, we need to know what we're facing today."

With most stores offering online buying options and social media creating a landscape of influencers pushing buying habits, Amlani reminded attendees that many customers have already done their research and pre-shopped prior to visiting a



*Liza Amlani, founder of the Retail Strategy Group, said, "To understand the buying habits of customers, technologies such as AI should complement rather than dominate the customer experience."*

brick-and-mortar location. Customers are more brand savvy and are looking for retail experiences that align with their values, something Amlani said is influencing the buying habits of Millennials and Gen Z shoppers.

Amlani said, consumers want to engage with brands that have values that align with their own values. But similar values are not enough to secure a purchase with omnichannel, direct to consumer and online marketplaces that make convenience a determining factor for consumer purchases.

As retailers, "we have a lot more ways for the customer to engage with us, but also shop with us. We also have a more diverse product assortment. There are additional expenses, both physical and social. And all of that is impacted and fraught with a lot more choice," she said.

Noting that customers have more choices when it comes to purchasing eyewear with big box stores and chains, these large retailers have become major competitors to independent optical. Amlani said it is now up to businesses to enhance custom-

er loyalty and increase engagement through building relationships and trust.

"There is an abundance of data out there, and it's just the data we're capturing in our POS system. We're capturing insights from talking to the customer, seeing what their bodies and minds are searching for because we need to drive the right products at the right time," she said.

Amlani noted there is a lot more choice and businesses need to understand why customers are shopping with them and what is important to their purchasing decision.

"Engagement and insight is critical because you need to keep up with your customers. Fashion, it's a personal purchase. We know there's a business case here, but there has to be the balance between tech and touch," she said. "When you have that audience, you can capture insights, drive loyalty, product assortments, [and supplying] the right product at the right time and place is going to get you the customer." ■

— Sarah McGoldrick, Contributing Editor

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## Six Optometry Students Honored With Innovator Scholarships From Rick Bay Foundation

NEW YORK—Six optometry students, each representing a different school of optometry, were recipients of this year's Student Innovator of the Year Award. Named after Rick Bay, former publisher and president of Jobson's *Review of Optometry* and *Review of Ophthalmology*, the Foundation's Student Innovator of the Year award aims to support optometry's next generation.

The Rick Bay Foundation Student Innovator Scholarship is awarded to the most outstanding and innovative idea presented by a student at optical colleges and universities throughout the country. The selected student is chosen by their school based on qualities that embody

Rick's commitment to the profession including integrity, compassion, partnership and dedication to the optical industry.

"The Rick Bay Foundation, as part of its commitment to supporting education in the ophthalmic profession, is proud to support along with our generous sponsors the creative innovations of this year's winners of the Student Innovator Awards," said Marc Ferrara, consultant to the president of the Jobson Optical Group. "These students always impress the Foundation and the judges at their institutions with their imaginative creativity and pragmatic solutions to challenges in the practice of optometry."

This year's winners were, Molly Maolee Vang, representing the Herbert Wertheim School of Optometry and Vision Science, UC Berkeley School of Optometry; States Labrum, representing the Southern College of Optometry; Mariam Labib, representing the New England College of Optometry; Jerry Li, representing SUNY College of Optometry; Charlie Bahr, representing the Ohio State University College of Optometry; and Elise Radcliffe, representing the Indiana University School of Optometry.

Molly Maolee Vang, who was sponsored by VSP Vision, was honored for her invention, Path to Kashia, a culturally responsive health initiative for the Hmong community. Path to Kashia is a health

intervention that combines both the Hmong culture with evidence-based health education methods. Kashia in Hmong means to understand. Vang said, "The aim of this project is to ensure we understand and are addressing the needs of the Hmong population. Path to Kashia aims to create a health education curriculum that complements the Hmong way of learning, and I want it to start with vision and eye health."

States Labrum, who was sponsored by Clear-Vision, was honored for his invention, SterilEyes Case, which is a durable, transportable, sterilizing glasses case. With a touch of a button, UV-C lights effectively kill 99.99 percent of germs, bacteria and viruses on your glasses, sunglasses and readers. SterilEyes Case has the potential to revolutionize the case and eyewear cleaning industry. SterilEyes Case will help everyone live healthier lives by removing germs common on eyewear while protecting glasses. A patent is pending on SterilEyes Case.

Mariam Labib, who was sponsored by MyEyeDr., was honored for her invention, Improove VR/AR, a virtual reality/augmented reality software that is designed to improve the accuracy of the visual system in athletes. Improove is designed to train the quiet eye as well as provide brief central deprivation to improve the performance of the player. Labib said, "I currently have a patent pending on the invention, and although I do not have any images of the current creation, I have a great team working with me and we hope to have a finalized product in the near future."

Jerry Li, who was sponsored by EssilorLuxottica, was honored for his invention, OrthoptiX, A Novel Prismatic Device to Increase Strabismus Surgery Success. On average, pediatric patients with large angle strabismus will have about 2.5 corrective procedures in their lifetime and doing surgery early does not decrease reoperation rate. OrthoptiX is a novel prismatic device that utilizes a prism-mirror system to enhance binocular vision in pediatric patients with large-angle strabismus. This device effectively reduces the correcting prism's dioptric power and weight by half.



Molly Maolee Vang



States Labrum



Mariam Labib



Jerry Li



Charlie Bahr



Elise Radcliffe

Charlie Bahr, who was sponsored by VSP Vision, was honored for his invention, VisiFlex, which tackles the long-time problem of the elusive accommodating intraocular lens. Its simple, yet effective design has the potential to effectively restore the eye's natural ability to shift focus from far to near, even after cataract surgery.

Elise Radcliffe, who was sponsored by MyEyeDr., was honored for her invention, Tracking Tears: The Punctal Plug Monitoring System, a new and innovative punctal plug design. Through computer technology wired into the silicone plug, patients will be able to access an app that details the quality of their tear film in real time, throughout the day.

By delaying the drainage of tears and assessing the quality through a slow-draining system, this punctal plug will track the tear film while also tracking abnormalities and foreign deposits. In addition, the patient will have the ability to print a Tear Film Report to share the results with their doctor.

— Mary Kane, Executive Editor

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