

Optical Gains Traction in Adopting Artificial Intelligence

Companies, ECPs Begin to Reap Benefits From AI's Productivity

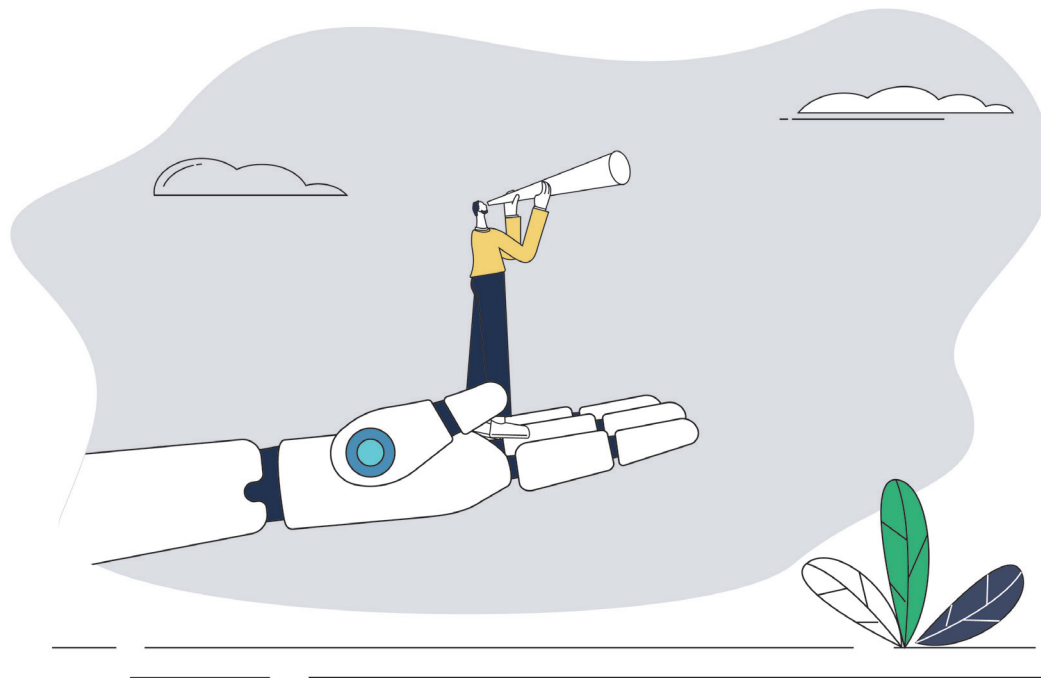


Image Credit: Getty Images/ guoya

BY VM STAFF

As artificial intelligence (AI) continues to penetrate nearly every industry and aspect of our everyday lives, ECPs and optical retailers are taking a hard look at the technology, and appear to be in various stages of implementing it into their business models and strategies. It also appears that AI is ready to permeate the optical industry as well, with the promise of more efficient processes that can benefit both providers and patients/consumers.

While AI is proliferating across many industries, many C-suite executives are moving forward cautiously with its adoption. Some cite security concerns and others point to the unreliability of AI systems that can generate wildly inaccurate information. A recent example that made headlines is Google's experimental AI Overviews search tool that the company withdrew for further development after it advised some users to use glue to make cheese stick to pizza better and said geologists recommend people eat a rock every day.

According to a new survey, <https://www.teradata.com/press-releases/2024/survey-conducted-for-teradata-by-newtonx> conducted by Teradata by NewtonX, 7 in 10 business executives said their AI strategy is not fully aligned with their business strategy, while 61 percent said they fully trust the reliability and validity of their AI outputs. Meanwhile, 40 percent of the survey's respondents do not believe their company's data is ready to achieve accurate outcomes.

Despite these issues, a growing number of optical businesses, including frame and lens manufacturers, wholesalers and retailers are employing AI for a variety of tasks, and with good results. Eyecare professionals are also beginning to reap the benefits of AI, with ECPs employing the technology for such tasks as targeted marketing campaigns, sales training, patient education, and for transcribing patient conversations.

"The benefits of using AI are paying off for Elite Eye Care," Haley Perry, OD, owner of Elite Eye Care in Arden, N.C., told *VM*. "I have seen a substantial boost in productivity. AI allows me to spend less

time on routine tasks such as charting and data analysis, giving me more time to focus on higher value activities."

Back in March at the *VM Summit*, Samantha Jordan, head of computing and technology at the Future Today Institute, posed this question to the crowd of optical industry leaders, "Are you optimistic about the future of artificial intelligence (AI)?" John Whyte, MD, MPH, WebMD's chief medical officer, discussed with *VM Summit* attendees 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.

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."

Vision Monday reached out to ECPs, optical retailers, eyewear companies, and contact lens companies to find out how they are applying AI in their businesses. The "potential of AI" was mentioned frequently, with some companies taking a more



Etnia Barcelona's Underwater campaign explored AI to showcase a collection in an otherworldly setting.



cautious approach to AI with concerns over security and privacy at the forefront. And of course, meeting the needs of ECPs and patients emerged as the ultimate goal.

"At J&J, we are committed to supporting sight at every stage of life. Our goal is to leverage the power and promise of AI in combination with our deep expertise in science, to accelerate our ability to solve unmet eye health needs for both patients and eyecare professionals," Peter Menziuso, company group chairman, Johnson & Johnson Vision, told *VM*.

National Vision, one of the largest optical retailers in the U.S., recently announced a Series A preferred investment along with Topcon Healthcare in Toku Inc., a leader in applying AI-powered diagnostic and screening tools to retinal imaging. The investment round allows Toku to accelerate the development of technologies that use AI to analyze retinal images for biometric markers linked to overall health and risk of cardiovascular events, stroke, and diabetes.

To maximize market access, Toku applies its technology to leading retinal cameras. Topcon Healthcare Inc. also announced recently a partnership with Mi-

crosoft Corporation to deliver AI-powered 'Healthcare from the Eye' solutions to improve health care access, cost and quality, the company said.

National Vision also announced that it had set up an AI Council composed of key business and technology leaders last year to ensure the company was embracing this new technology. The key goals of this council are to drive awareness, catalog ongoing initiatives, and identify new business opportunities enabled by AI, while providing a level of governance across the organization, National Vision said.

"For National Vision, one of the greatest opportunities we see for AI is in the exam lane," Priti Patel, OD, National Vision's chief medical officer, told *Vision Monday*. "We're looking at ways to use AI that will enhance the impact of a routine eye exam on patients' overall health and well-being, and we're investing in developing tools that can make life-improving care more affordable and accessible to more people.

Eyewear companies, contact lens companies, and optical lens and equipment manufacturers provided *Vision Monday* with an overview of how

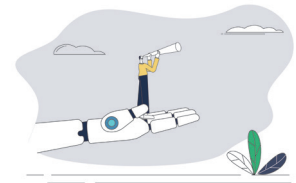
they are currently using AI, giving us a glimpse into the future of what may be on the horizon, and the concerns they have over the budding technology. Here's what they had to say:

AI Campaigns Bring Eyewear to Another World

One of the benefits of using AI in a creative setting is that it can transport us to places we cannot go on our own, such as another planet, or even the very depths of our own minds. Some eyewear companies have experimented with AI in campaigns to showcase eyewear in extraordinary locations, including Etnia Barcelona <https://www.etniabarcelona.com/us/en> with its recent Underwater campaign.

Created for the brand's 22-piece Spring/Summer 2024 collection, Etnia Barcelona's Underwater campaign transports viewers to a surreal underwater universe, recreating a world that is populated by mythical and mystical beings like mermaids—all of whom wear Etnia Barcelona eyewear. Campaigns like this help make eyewear the focus of something genuinely extraordinary, alluring and never-before

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Eyewear Companies Are Using AI in Creative Settings

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seen, carving a new frontier for the world of eyewear.

About the campaign, Etnia Barcelona stated, “Once again, the Barcelona-based brand’s campaign is an exercise in creativity, experimentation, and attention to detail... Moreover, Underwater is a universe created through artificial intelligence. An artificial intelligence that, however, moves us away from a cold and robotic image to bring us closer to a world where technology merges with nature to create a magical and harmonious environment, respecting every detail... Etnia Barcelona’s new campaign invites us to explore the mysteries of the underwater world while reflecting on the coexistence of human creativity with artificial intelligence to create a surprising world.”

Similarly, Washington, D.C.-based optical shop Georgetown Optician explored the limits of AI to craft a campaign that showcases the breadth of its in-store collection. In Spring 2023, Georgetown Optician partnered with Design Army to create “Adventures in A-EYE,” an experimental ad campaign made entirely with AI and focused on the story of futuristic travelers visiting a fictional planet.

The campaign spans collections: Georgetown Optician’s offering of brands such as Jacques Marie Mage, Anne et Valentin, Cartier, Mykita, Kirk and Kirk, Garrett Leight, and more are carefully curated throughout. Georgetown Optician’s Pierce Voorhuis explained to *Vision Monday* in 2023, “The power of the story is that we can take the campaign to new worlds that line up with entirely fresh themes. The imagination really is the limit on where we go next... We want our followers to get a full flavor of our offerings, but we also want them to be emboldened and inspired by our unique offerings. We focus on eyewear that sparks that imagination.”

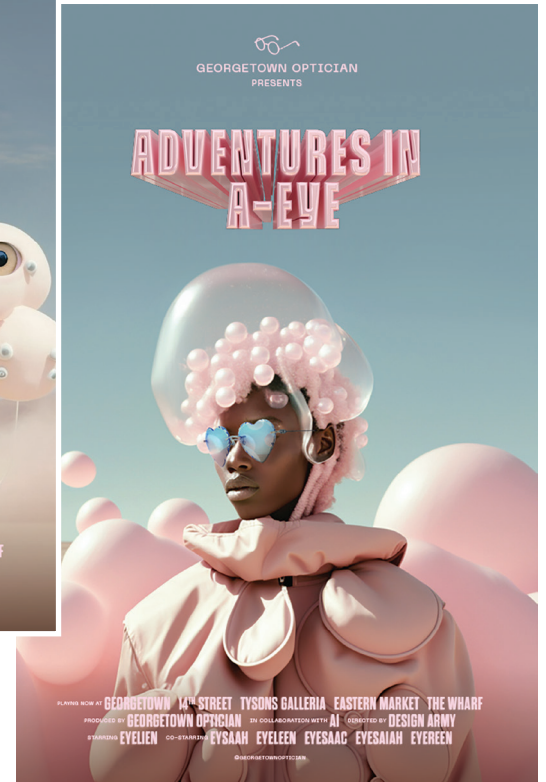
About the campaign, he said, “Exploring the creativity of eyewear is one of our founding passions. Adventures in A-EYE showcases some of our most exciting and innovative products and marries it with



In collaboration with Design Army, Georgetown Optician showcased its eyewear offerings through a unique AI campaign.

a brand-new way of storytelling through AI-generated landscapes and models. Georgetown Optician has always been about presenting our customers with some of the most unique eyewear from around the world, this campaign continues to tell that story using our most imaginative technique yet.”

Design Army, a D.C.-based design agency, created the campaign in collaboration with Georgetown Optician. Pum Lefebure, co-founder and chief creative officer of Design Army, discussed what it’s like to work with AI in a creative sector, saying, “I love that this is a new beginning of cre-



ative possibilities! And I’m proud that—in working with AI—we never lost our sense of creativity and craft. We didn’t let AI control us. The project itself is a journey for Design Army.”

When used alongside artists and creatives to enhance the beauty and design of eyewear, AI campaigns can offer a fresh perspective—one that, perhaps, we might not have reached on our own. ClearVision was an early experimenter and researcher of AI in the eyewear space, and the company said it continues to use it across many of its departments. For ClearVision, applications of AI include 3D

printing, internal app development, development for technical products, processing improvement courses and Python coding courses, among others. On a day-to-day basis, employees use AI like Chat-GPT as a planning tool for email campaigns, drafts and organizing data, or Mem to take and summarize meeting notes, the company told *VM*. The HR department also makes use of AI, employing it to assist with writing and editing handbook policies, editing job descriptions, writing communications and award applications, generating unique interview questions, creating game outlines for training sessions, organizing lists and more. ClearVision said its sales team used AI assistance to create a training workshop for CE credits that matches face shapes to frames using AI, too.

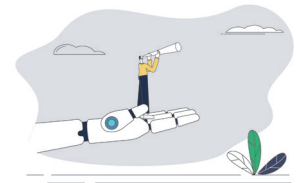
Because the ClearVision team began working with AI early in its development, they have experienced its growth over time and are able to discern where it can streamline work and allow more time for creativity—the goal when using AI, company-wide, is to create efficiency. Jennifer Trakhtenberg, ClearVision’s co-COO and chief people officer, told *Vision Monday*, “We have challenged our leaders to find opportunities to incorporate AI into their daily work routines and urged our employees to identify ways to create efficiency within their days. The premise from the beginning has been to have an even better job by streamlining less value-added tasks and consider this to be your own personal digital assistant. We talk about it frequently at leader morning meetings and we look for opportunities

where it did not work as we would have expected.”

To ensure that AI is adding value, ClearVision leadership, as well as those who use the technology regularly, shared that they pay close attention to changes in the technology and attend educational workshops and CE talks specifically dedicated to artificial intelligence. They also monitor any potential downsides to the technology, including privacy policies, fact checking, security and more, the company said.

Most importantly, though, using AI in the workspace is about learning to adjust and accept change, and see how you can make it useful to you. Nicole Ramos, art director at ClearVision, said, “Like anything that involves change, it takes a bit

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Contact Lens Companies Tackle Multiple Tasks With AI

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of adjustment and learning. You really have to alter the way you think about AI and truly embrace it. Learning new tools may take some extra time, but the amount of time you save on your work thereafter is worthwhile. The learning doesn't stop after you pick up one tool; the beauty of it being so 'new' is that more and more tools are becoming available and constantly changing."

As AI technology continues to develop and improve, ClearVision will continue to find ways to use it for everyone's benefit—both internally and externally. Said ClearVision president David Friedfeld, "It is really going to be about the next 5 to 10 years. ClearVision will continue to lean into AI so we can grow with the tools, and when the next major shifts are happening around AI being active and being able to interact with other AI tools, that is when you are going to see a real shift.

"Companies cannot not adapt if you are not along for the ride, it will be too drastic of a sea change," he added. "We really want to provide a superior customer experience from product to customer service, and if that means we can be more efficient in understanding what the needs and wants are and be faster and more efficient, AI can help us all get there."

Contact Lens Companies Embrace the Promise of AI
With the use and implementation of AI exploding across nearly every industry and business, contact lens companies find themselves using the technology for a variety of functions, including optimizing supply chain logistics, patient screening and diagnosis, and data collection and analysis. While some companies appear to be taking a somewhat slower and more cautious approach to AI, others appear to be diving in as early adopters.

"At J&J, we are committed to supporting sight at every stage of life. Our goal is to leverage the power

and promise of AI in combination with our deep expertise in science, to accelerate our ability to solve unmet eye health needs for both patients and eyecare professionals," said Peter Menziuso, company group chairman, Johnson & Johnson Vision.

"As an example, AI is helping us optimize our supply chain logistics so we can deliver our broad portfolio of eye health solutions (like our Acuvue brand contact lenses and Tecnis presbyopia correcting IOLs) with greater reliability, increasing predictability and minimizing disruption for the people counting on our products. We

are also using AI and machine learning to help more patients by optimizing our vision clinical trials and streamlining patient recruitment, screening and diagnosis, and data collection and analysis," Menziuso said.

Embracing the potential of AI and staying up-to-date is also important as the technology appears to change almost daily, with new tools and technologies designed to help businesses work smarter and faster. Within that movement forward, privacy and security also remain para-

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— Priti Patel, OD, chief medical officer, National Vision

Cutting Edge AI Technology Helps The Eye Place Diagnose Eye Conditions

OLMSTED FALLS, Ohio—The optometric team at The Eye Place is using cutting edge technology to talk to their patients about eye conditions, and artificial intelligence (AI) is front and center to their efforts. According to practice owner Scott Sedlacek, OD, “We are using personalized communication to inform patients about new treatments and products by using an avatar video.” The application, called HeyGen, enables Dr. Sedlacek to easily create videos of himself by uploading a script to his avatar. He uses the video technology to explain diagnostic and treatment options for his patients.

In addition to HeyGen, The Eye Place uses the following AI applications:

Altris AI analyzes OCT images to detect and describe abnormal pathology in the retina and can be used to educate patients about their eye conditions by using color-coded images.

“Altris AI makes me more efficient, accurate, and consistent with its almost-immediate analysis of patient data. Technology helps in treatment planning, reduces over referrals and allows me to detect things earlier, enabling me to put interventions into place sooner, which usually gets us better outcomes,” Dr. Sedlacek said.

“With the Altris AI and my 3-D OCT images I can make better decisions about what to do with my advanced macular degeneration patients. I can see whether there is subretinal fluid or not, whether I’m catching it early enough, and it helps me decide whether a patient needs an injection or not. I have been using this technology every day since the beginning of the year and I believe it is something every optometrist should have. It’s a need, not just a want,” he said.

EYE5 uses augmented reality glasses for patients suffering from low vision, including people diagnosed with macular degeneration. Barti has scribing capabilities using AI and offers assistance with electronic medical records and patient management systems. Both tools are used in the practice.



Scott Sedlacek, OD

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—Scott Sedlacek, OD, owner, The Eye Place

“These AI technologies are some of the easiest things I have implemented in the 25 years I have been an eye doctor, and that includes the staff training, which is so important,” said Dr. Sedlacek.

He believes that these AI applications help him make more descriptive and accurate diagnoses more quickly and consistently. “Patients understand their condition better and that leads to better compliance with my treatment. I can do progression analysis of data and show trends over time, which allows me to do more of the decision-making instead of the data gathering.

“My patients love it when I stay on the leading edge of technology and always bring them the best testing and treatments available. My team members are really engaged in our mission, and

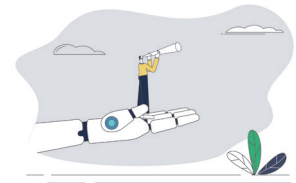


(L to R) The Eye Place team includes Kim Sedlacek, office administrator; Sydney Adamonis, office intern; Scott Sedlacek, OD; and licensed opticians Amanda Aquino and Camelia Filipescu.

they excel at customer service, so they hear directly from patients who love what we do and tell everyone else about us.

“Some people have a misconception that AI is autonomous, and they will lose control of decision making, but the type of applications we use augment our decision making. I am proud to embrace new and innovative solutions that will help my patients and practice. Scientific discoveries and technological advancements are happening faster than most doctors can learn about them and implement them.

“Optometry must keep up so that we may provide the best outcomes for our patients, receive the best income for our practices, and cement our relevancy in the future of health care delivery,” Dr. Sedlacek concluded. ■



Progressive Lens Design Taps Power of AI

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mount as is the goal of keeping the patient at the forefront of priorities.

“As an industry leader, CooperVision is deeply committed to adapting to the evolving needs of eyecare professionals and contact lens wearers,” said Simon Seshadri, senior vice president, global marketing and life cycle management. “We understand the importance of staying at the forefront of technological advancements, including integrating AI technologies into our business.”

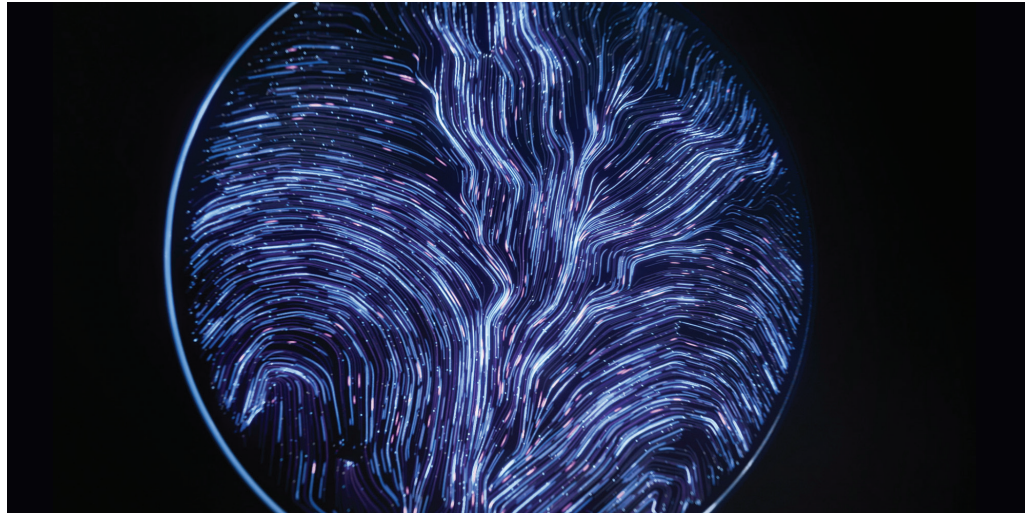


Simon Seshadri

“At CooperVision, we are embracing the potential of AI. As such, we are actively exploring how AI can be utilized across various facets of our business, from advancing research and development processes to optimizing commercial efforts and streamlining manufacturing and supply chain management.”

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Seshadri continued, “At CooperVision, we are embracing the potential of AI. As such, we are actively exploring how AI can be utilized across various facets of our business, from advancing research and development processes to optimizing commercial efforts and streamlining manu-



The XR series is EssilorLuxottica’s first AI-powered family of lenses. It consists of Varilux XR and XR track progressives.

facturing and supply chain management. We aim to harness the power of AI to drive innovation and improve efficiency while ensuring that our customers, wearers, and partners remain at the forefront of our considerations. In the context of AI, we place paramount emphasis on privacy and security.”

AI in Ophthalmic Lens Design

In the seven years since Shamir introduced the first ophthalmic lens designed with AI, the technology has proliferated, particularly in progressive lens design. Although not every progressive requires AI’s capabilities, many lens designers use it to predict a wearer’s visual behavior by capturing and analyzing millions of data points, enabling them to create advanced, personalized progressive lenses. Here are some examples of how AI is being applied to lens designs and design systems.

Powered by behavioral artificial intelligence, EssilorLuxottica’s Varilux XR series is the first “eye-responsive progressive lens for instant sharpness in motion,” according to its manu-



Varilux XR track integrates NVB (Near Vision Behavior).

facturer, EssilorLuxottica. The company noted that with today’s modern lifestyle, our eyes are moving 100,000 times a day to process all the visual information we are exposed to. Researchers from EssilorLuxottica studied more than 6,500 consumers to enrich their understanding of presbyopes’ lifestyles and visual challenges. The group has gathered over one million data points to develop a behavioral modeling system that predicts how presbyope individuals will

look at objects around them.

“The power of artificial intelligence lies in the quantity, quality and variety of data, and the way they’re analyzed,” commented Norbert Gorny, co-chief operating officer at EssilorLuxottica, when the company announced its AI initiative in 2023.

“The insights we established from data collected from customer orders, real life wearer tests, in store measurements and physiological models are exclusive to EssilorLuxottica. Thanks to the digital twinning technology, we can now establish a visual behavior profile for every single prescription and provide the first eye-responsive lens that respects the natural behavior of the eye.”

The Essilor digital twin is an AI system that provides a realistic indication of spectacle-wear-

er perception through lenses by simulating the wearer’s experience with their lenses in a 3D environment, according to EssilorLuxottica. This tool allows one to replicate the digital twin of any patient, reproduce daily-life situations, and assess the behavior of this humanized digital twin when wearing a specific pair of lenses.

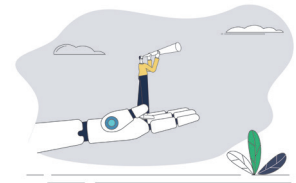
The Varilux XR series currently consists of Varilux XR and the new Varilux XR track, which integrate NVB (Near Vision Behavior), a measurement that factors in a wearer’s visual behavior and posture while replicating a reading task. This enables the wearer’s near vision zone to be positioned according to their natural behavior, according to EssilorLuxottica. Beyond adjusting the position and vertical area of the near vision zone, Varilux XR track lenses also extend the near vision width according to patient behavior.

Shamir: Autograph Intelligence 2, Driver Intelligence, Spark 4W

Shamir recently updated its flagship progressive, Autograph Intelligence, to meet the visual needs of today’s presbyopes. Following the initial launch of Autograph Intelligence in 2018, Shamir has gathered more data and findings to improve the performance and capabilities of this progressive lens design that evolves with the wearer’s visual age to adapt to everyday visual tasks involving smartphones, tablets, computer screens and laptops, according to Shamir.

The updated design offers advanced personalization using artificial intelligence and a wider digital zone, Shamir says. The result is a progressive lens that adapts to the wearer’s visual age while keeping up with their visual needs. Shamir recom-

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Lens Designers Are Using AI to Predict Visual Behavior

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mends pairing Autograph Intelligence 2 with its Glacier Expression AI coating.

Shamir Autograph Intelligence is supported by three proprietary technologies developed by the company.

- Eye-Point Technology AI utilizes Head Eye Integrative Movement software to see exactly where in the lens patients look, along both the vertical and horizontal meridian, when they perform tasks in the various visual zones.
- Continuous Design Technology integrates research findings with patient habits and visual needs to provide a seamless lens for every Visual Age. This allows the patient to comfortably move from one add to the next without any adaptation concerns.
- Visual AI Engine applies elements of Artificial Intelligence that mimic human intelligence. It makes go/no-go decisions based on predefined rules, and the output ensures uniform and controlled planning for any combination of parameters with extreme accuracy for each new lens design.

Last year, Shamir expanded its AI lens portfolio with the addition of Driver Intelligence. The lens, which is optimized for driving, is based on a design that analyzes visual eye points to determine the best lens design configuration based on the positioning of the mirror and dashboard. This enables sharp and clear vision with less glare—in all lighting conditions and increases road awareness with exceptionally wide and clear visual fields, according to Shamir.

It accounts for changing light, eye fatigue, and reaction time, leading to enhanced and superior performance on the road, according to Shamir. Shamir Driver Intelligence comes as a set of two



Shamir employs artificial intelligence in its lens design and dispensing technologies.

pairs of glasses, one for daylight and one for nighttime driving.

Explaining how Shamir incorporates AI into its products, Ranaan Naftalovich, CEO and president of Shamir Insight North America, explained, “At Shamir we try to do things that make people’s lives better, and artificial intelligence just helps us to get there faster. Autograph intelligence has 12 different designs. When you try to do a customized lens with 12 different designs, you have 430,000 options. With artificial intelligence you can do it (customization) much faster, and that’s what has allowed us to bring technology into the market much faster.”

In addition to the design process, Shamir also uses AI to gather wearer data that informs the design. In 2022 Shamir invested in Blink, which has developed AI-driven eye-tracking technology that allows a better understanding of visual behavior.

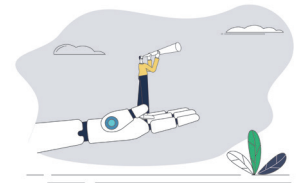


“We have to use artificial intelligence to understand what is actually happening to us when we’re looking at the world in a dynamic situation,” Naftalovich said.

In addition to lens design, Shamir uses AI in its newest digital measuring technology, Spark 4W. Like its predecessor, Spark 4, it enables ECPs to obtain precise and automatic measurements of their patients’ PD with one click, Shamir says. A state-of-the-art AI algorithm detects and processes 192 facial landmarks.

Because it runs on WiFi, the standalone system can be located anywhere in the store, and it carries an integrated CPU. With the accompanying app, Shamir Spark Remote, ECPs can quickly capture PD using any mobile device and complete the process by filling in the additional parameters once the pa-

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AI Is Taking Individual Lens Design to the Next Level

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tient has left the store.

IOT reports that its AI-powered lens design system, IOT Lens Data Advisor, leverages machine learning algorithms to create personalized progressive lenses that maximize wearer satisfaction. IOT Lens Data Advisor collects and analyzes vast amounts of data, including wearer visual profiles, lens parameters, and wearer satisfaction ratings. By identifying patterns and correlations within this data, the system can predict the ideal lens design for each individual, taking into account their unique visual needs and preferences, IOT said.

The system's machine learning capabilities enable it to continuously learn and evolve as it gathers more data from wearers, according to IOT. This iterative process ensures that IOT Lens Data Advisor stays at the forefront of lens design, consistently improving its ability to deliver optimal visual experiences, IOT said.

IOT Lens Data Advisor is not only a powerful tool for creating personalized lenses but also a valuable asset for eyecare professionals. By streamlining the lens selection process and increasing wearer satisfaction, IOT Lens Data Advisor empowers opticians to provide their patients with the best possible vision care, according to Natalia Villaveiran, IOT outbound marketing manager.

Zeiss's new, refreshed SmartLife portfolio uses AI as part of the company's Intelligence Augmented Design (IAD) approach. A Zeiss spokesperson explained that IAD is part of the company's top-tier Individual 3 portion of the portfolio, which includes three designs: a freeform PAL, SV and digital (boost) lenses.

Zeiss defines IAD as "technology that supports and complements human performance without replacing it." Instead of forcefully applying data science, Zeiss applies the smart technologies of AI, computer science, and machine learning in the lens design process, keeping the eyecare practitioner at the center, according to Robert Spirito, head

of marketing for Zeiss Vision Care U.S.

Zeiss Intelligence Augmented Design technology uses smart data science to further optimize the lens design. The individual parameters of the wearer, which are collected by measurement by the eyecare professional, are compared with 12.5 million data points of the visual behavior of certain age groups to make the target design more precise.

In this way, the technology determines not only the distances that will be needed in the lens for everyday life, but also how the eye and head movements of people who wear glasses will appear. Together, this is translated into a target design that optimally matches the visual behavior, Zeiss reports.

With its new artificial intelligence technology, Rodenstock is now able to make what it calls Biometric Intelligent Glasses (B.I.G.) available to all progressive lens wearers. The company offers two versions: B.I.G. NORM and B.I.G. EXACT, which uses additional eye measurement data.

Using statistical analysis, Rodenstock said it can determine new, more precise lens calculations for all the most important biometric parameters in the eye. With these new lens calculation norms, the lens maker is able to tap the potential of one of the biggest biometric data sets in the industry, comprising 500,000 individual biometric eye scans. Rodenstock's new lens calculation norms allow the company to create an approximate biometric model of the eye, using just the standard prescription values delivered to Rodenstock by opticians as input.

According to Rodenstock, the benefits of B.I.G. EXACT—Biometric Intelligent Glasses that are produced using exact measurements from Rodenstock's DNEye Scanner—remain unparalleled, the company's AI technology enables it to increase the level of biometric accuracy within standard progressive lenses. ■



IOT's Lens Data Advisor is an AI-powered design system that leverages machine learning algorithms to create personalized progressives.

ZEISS SmartLife Lenses
Designed for dynamic visual behavior.

ZEISS
Seeing beyond

A complete lens portfolio for busy eyes in a digitally immersive world.

- Designed with the most advanced visual behavior data.
- Customized for individual wearers' unique parameters including their age-specific attributes.

www.zeiss.com/pro/smartlife

Our best, even better.

Zeiss's new, refreshed SmartLife lens portfolio uses AI as part of the company's Intelligence Augmented Design (IAD) approach.

B.I.G. VISION™ FOR ALL

B.I.G. NORM™
THE NEW NORM FOR BETTER VISION:
AI-POWERED BIOMETRIC
PROGRESSIVE LENSES

RODENSTOCK

Rodenstock's B.I.G. Vision (Biometric Intelligent Glasses) uses AI to determine more precise lens calculations for important biometric parameters in the eye.

North Carolina Practice Believes in the Power of AI

Haley Perry, OD, is a big believer in the power of artificial intelligence (AI). The owner of Elite Eye Care, a Vision Source practice located in Arden, N.C., said the office “has leveraged AI to streamline our operations and improve efficiency across various roles.” From the front desk to the marketing department to transcribing patient notes, AI is playing a pivotal role throughout the entire practice.

Dr. Perry said, “Our front desk staff uses ChatGPT to assist non-English speaking patients and clarify complex insurance benefits. Our opticians and managers optimize stock levels and manage inventory more effectively by analyzing sales data and patient demographics with AI tools. For financial benefits, our billing staff uses AI to handle claim denials and guide the refiling process, reducing overhead costs.

“Our practice managers and marketing employees harness AI to identify sales trends and create targeted marketing campaigns, boosting our revenue. We also focus on team building by using AI to develop role-playing scenarios for sales training, enhancing our team’s skills and cohesiveness. I use AI to transcribe my patient conversations into SOAP notes, significantly reducing charting time,” she said.

The capabilities of ChatGPT extend far beyond developing emails and marketing campaigns, and Dr. Perry said the practice is using ChatGPT to its fullest capacity. The practice also uses Scribe to create office protocols, Recast to convert articles into podcast episodes for easy listening, and tools like Syllaby and Visla to create marketing videos. These applications enhance various aspects of the practice, from protocol development to marketing and education, Dr. Perry said.

Apparently, the benefits of using AI are paying off for Elite Eye Care. “I have seen a substantial boost in productivity. AI allows me to spend less time on routine tasks such as charting and data analysis, giving me more time to focus on higher-



Haley Perry, OD

“AI allows me to spend less time on routine tasks such as charting and data analysis, giving me more time to focus on higher-value activities.”

— Haley Perry, owner of Elite Eye Care

value activities. For example, I now have more efficient scheduling and goal-setting processes, thanks to AI’s ability to analyze data and suggest improvements.

“AI has made our processes and procedures significantly more efficient. It streamlines routine tasks, improves data accuracy, and allows for better resource allocation, ultimately enhancing our overall productivity,” Dr. Perry said.

Understandably, when the technology was first introduced the staff’s reaction to using AI was mixed. Initially, there was some hesitation and there was a learning curve. Dr. Perry said, “As our team recognized the potential of AI, they embraced it more enthusiastically. I created a course to help them understand and utilize AI effectively. While it requires imagination and expertise to ask the right questions, our team has become proficient in leveraging AI to enhance their workflows.

“In general, I haven’t encountered significant downsides. Increased productivity can sometimes lead to a sense of needing to find more tasks to fill



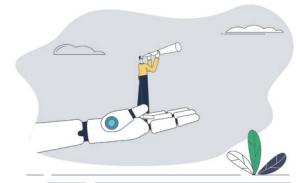
AI has allowed the staff at Elite Eye Care to take on new initiatives and improve the practice. “We are doing more faster because we can,” Dr. Perry said.

the time. However, this has allowed us to take on new initiatives and improve our practice further. We are doing more faster because we can,” Dr. Perry noted.

In short, AI has become “a go-to resource for finding the best possible answers and solutions when I’m not available,” Dr. Perry noted.

The practice also leverages AI in its marketing materials. The team uses ChatGPT to tailor marketing strategies based on patient demographics, create targeted social media posts, identify keywords for blog posts and social media posts, design and analyze feedback surveys, and craft personalized educational content. “This allows us to engage more effectively with our patients and optimize our marketing efforts for better results,” Dr. Perry said.

In the next six to 12 months, Elite Eye Care plans to use AI for goal-setting and measurement, data analysis, and problem anticipation. “I hope that electronic medical records will integrate AI to automate documentation and improve patient triage with automatic scheduling. This will enhance our ability to provide timely and appropriate care,” Dr. Perry concluded. ■



AI Brings a Discerning 'Eye' to Prescription Labs

Applications of artificial intelligence (AI) continue to evolve, and have recently extended to prescription labs, where AI is changing the way ophthalmic lenses are processed. Here are examples of how the technology is being used for lens surfacing and inspection.

The first intelligent generator built on Satisloh's VFT-orbit's proven platform, the VFT-orbit-zi incorporates AI and machine learning technologies for advanced, streamlined diagnostics and predictive maintenance. It constantly compares actual axes performance against reference values and employs predictive analytics to alert the lab to any potential issues, Satisloh said.

The VFT-orbit-zi features include streamlined diagnostics and AI-powered predictive maintenance; an ultra-fast milling process with a new, stronger milling spindle; voice-coil technology for high surface accuracy; auto-calibration and a power-safe mode.

Schneider's CSI Modulo ONE reliably detects cosmetic defects automatically and dependably, at the highest level, according to Schneider. The optical system screens the surface for irregularities and characterizes and evaluates them with the help of AI.

It detects any common defects such as scratches, pits, center dots, haze, chatter, cutting marks, spirals and fringes. Automated cosmetic surface inspection guarantees consistent, objective evaluation.

The smart system mimics individual decision-making patterns to reflect the labs' unique quality standard. All labs must do is teach the system by feeding it decisions. In this way, CSI Modulo ONE knows what constitutes a go or no-go. It understands what kind of defect(s),



Schneider CSI Modulo ONE



in which combination, in what intensity and in which zones, is deemed acceptable.

Labs can implement the same quality routines across locations to guarantee the same

standards everywhere. Apart from this, labs can also opt to apply differing standards depending on the demands of the product or brand produced. ■