

connectivity

The Future of EveryThing and EveryOne



IoT: The Next Megatrend

NEW YORK—Beginning with speakers representing technological leaders such as Intel and the Consumers Electronics Association and concluding with a surprise guest well known both in the optical community as well as the business world at large, (see Page 56 for an interview with Warby Parker's Neil Blumenthal) the Vision Monday Global Leadership Summit, held here on March 18, again delivered on its renowned tradition of presenting a full day packed with information that will drive the business of vision now and for years to come.

With the theme of Connectivity: The Future of EveryThing and EveryOne, the 9th Annual Vision Monday Global Leadership Summit addressed the Internet of Things (IoT) and other trends affecting the optical industry. The much-anticipated event attracted 400+ executives from the ECP, retail, insurance, product and lab arenas to The Times Center in Manhattan.

Supported by Premium Sponsors, Essilor, Adlens, and Luxottica, Signature Sponsor VSP, and Supporting Sponsors Alcon, CareCredit, International Vision Expo, and DAC Vision, the VM Summit got underway with Jobson's Marc Ferrara. "Ninety percent of business going forward will be driven by what we talk about here today," he said.

"Technology's impact is hard to deny," said VM's Marge Axelrad, introducing the speakers and explaining that it's "important to build a relationship with technology."

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VM global leadership
SUMMIT
2015

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VM LEADERSHIP SUMMIT

The Internet of Things (IoT): Where Are All These Connections Taking Us?

The Internet of Things (IoT) has often been referred to as the third wave of connectivity and with today's technology constantly morphing into smaller, cheaper and more insidious devices, it begs the question, where is this web of smart, connected products and services taking us?

In his opening address, Jobson's Marc Ferrara likened IoT to "a new playbook for businesses going forward, creating a brand new game" with lots of positives and of course, some scary negatives. He said Uber was a good example of IoT since the car service model was creating value for consumers but was causing disruption for other suppliers in the value chain.

In her opening remarks, *Vision Monday's* Marge Axelrad declared, "We think the future is now." Changes that will be taking place in 2020 are already in play and the biggest challenge will be the decisions that companies must make to stay current with those changes, she said. This third wave of technology is affecting "how we buy, sell, market and manufacture products, not just for the vision care industry but for everyone," Axelrad predicted.

Kicking off the Summit, the first session of the day focused on The Internet of Things: Understanding the Next Wave of Connectivity, and featured several experts from outside the optical industry.

Michael Bell, VP and GM for Intel's new devices group said that in today's IoT landscape everything is connected and eventually all devices will interact with each other. "Every two years, the size of the devices goes down while the performance goes up." He believes the "advances in technology are beginning to outstrip our ability to know what to do with it."

As head of the new devices group, Bell's team is tasked with figuring out what future tech trends are on the horizon. Today, his group is taking advances in technology and putting them into personal and IoT spaces. For example, Intel's Curie Module is providing a whole new platform for wearables that are "much smaller, stream data and connect sensors, all so small you can put them in your shoe or on your bicycle," he said.

Bell predicted that by 2020 some 200 billion users would be connected via devices. Everything is connected—your phone your car, the stadiums

you visit—and eventually these device will interact with each other. The implications for the retail sector include smart signage and shelving as well as facial recognition. All this contact with customers will allow retailers to know what they want to buy as soon as they walk into a store, he said.

In the health care sector, advances are being made monitoring patients via remote medicine and developing prosthetic limbs using 3D printing. "Eyewear is the next big wearable platform and Intel is working closely with Luxottica. Headworn technology is not just a gimmick and we are investing heavily in that area," he said. But he warned that wearable technology has to look as good as it functions.

The next IoT speaker, Brian Markwalter, senior VP of research and standards for the Consumer Electronics Association, took attendees through a brief history of technological advances beginning with the first computer in 1942 to the iPhone in 2007.

He said the adoption of digital technologies and the new age of data is transforming the way we work, live and communicate, something he referred to as Digital Destiny (DD). "We are constantly digitizing our space, from baby monitors that mea-



Jobson's Marc Ferrara likened IoT to a new playbook for businesses going forward.

Jobson's Marge Axelrad said, "changes that will be taking place in 2020 are already in play."

Intel's Michael Bell and his new devices team are tasked with figuring out what future tech trends are on the horizon.

sure an infant's heart rate and breathing to watches that transmit data and cars that self park."

Markwalter outlined the five pillars of DD as ubiquitous computing; cheap digital storage; connectivity; digital devices; and centralization. "We know we can put the Internet on our wrists but what do we do with it? In the end, the question is not what to digitize next but what is the best use scenario for all these possibilities," he concluded.

Andrew Ranson, international business and technology strategist for Future Point of View (FPOV) looked at how big business has traditionally embraced technology. Using concrete historical examples, he compared Sears and L.L.Bean, two companies that started out selling their wares through catalogues. Anticipating the power of the Internet, in 2009 L.L.Bean invested in the web and online business systems transitioning nearly a third of their business to the online sphere, eventually recording record sales in 2013. Conversely, Sears was late to the Internet party, constantly playing "catch up" in order to stay relevant, and notched a \$1 billion loss in 2013.

Ranson pointed out this wrong or late approach to technology "can take down big companies," a trend he referred to as "Digital Darwinism." He went on to give concrete examples of how companies should prepare people for technological change, assess the risks and study how it will ultimately impact profits.

In order to achieve this, his "Tech Mastery Prescription" included the following key points: educate leaders so they gain knowledge of advanced technology; employ new digital marketing systems with the customer in mind; improve the use of data as an asset; automate processes; shift IT resources to development; and finally use technology to gain a competitive advantage.

Essentially, companies need to learn how to blend the human with the technology in order to get to the next frontier, he said. ■

mkane@jobson.com



Brian Markwalter of the Consumer Electronics Association is a big believer in Digital Destiny.



Andrew Ranson, strategist for Future Point of View, spoke to how big business embraces technology.

Redesigning the 'Store' and Customer Experience: Retail (r)Evolution

For the second session of the 2015 Summit, *Vision Monday* strived to determine what the new definitions of "retail" were and how social media and consumers' familiarity with technology are influencing store and health care environment design. Ultimately, the goal was to determine how all these things impact consumer purchasing and brand interaction.

To help answer some of those questions, *VM* tapped David Krepon, creative director of the brand experience studio at Little, an international architecture and design firm and author of "Retail (r)Evolution: Why Creating Right-Brain Stores Will Shape the Future of Shopping in a Digitally Driven World (www.retail-revolution.com)," who has more than 25 years of experience as an architect, artist and educator.

His multidisciplinary approach to the creation of shopping places focuses on understanding consumer behavior and the creation of relevant shopping experiences at the intersection of architecture, sociology, neuroscience and emerging digital technologies. He began his session with a quick lesson in the science of the human brain before explaining how the retail experience, the good and the bad, shapes consumer decisions.

"The rise of social media has disengaged us continuously from in-bodied experience which we should all be very concerned about. On the other hand, social media allows us to project our own emotions to a much broader audience. And so the power of digital is that it has the intrinsic ability for us to extend our mind to a number of other minds. I can't tell it's there but I know that as I enter a Facebook post or I put up a picture I'm affecting other people because they will see those pictures, and I know their neuropathy is changing," he explained.

"We don't have these close knit social groups anymore. What we do is build a multi-dimensional, digitally connected, cognitive network. And this has some challenges to it, it's a paradox really, because as we connect more and more and more brains to our



social network world, we also have the power of the individual becoming more important," Krepon continued. "The individual has the ability like that, like one fish in a school to change direction and the rest of the school begins to do the same thing, but now it's not just a group of five but 500 or 5,000 or 5 million.

"So the retail world is no longer this two dimensional landscape. Get out of this mind set of thinking about this as omni-channel and think about it as omni-experience in a biosphere. Separate ecologies that are molded together in intricate patterns in three dimensional ways. No longer verticals of selling one thing to one channel that means they are satisfied in the end," he said.

"'Making' is key to this young culture who is on their phone all day making and creating and pushing data into the world," he said. "It means that the brand of 'me' is going to be a big thing. Forget about demographic marketing. It's done. You are going to be marketing to individual needs because big data will allow us to do that and it's going to become extremely important.

"But in doing it, you will have to understand that what those customers want is to create because of the empowerment of the device in their hand that says they can. Because in doing social media work, what they do all day long, it has become natural for them. So, customer created content will lead to customer

David Krepon began his session with a quick lesson in the science of the human brain before delving into how the retail experience shapes consumer decisions.

created prices. Stores will morph. Stores will change because I can change them, because I am the one that makes it and I want to make it. Customers will enjoy a different kind of relationship with brands and there won't be plenty of give and take, but give and make experiences."

"Understanding that technology in the service of empowerment, as a happy extension, an enabler for me to connect more to you, will offset the digital dystopia that we're all concerned about and will engage us in a way that we have never been able to do in the past. It's not about the 'thing' it's about the relationship.

"So where is the 'experience?' Experience isn't out there. It's within us. It is in the way that man reacts to the conditions of his environment. In the end, it's not what people carry home in their shopping bags that's most important but what they carry home in their hearts and in their minds that drives the relationship," Krepon concluded. ■

dcarroll@jobson.com

Wide Ranging Eye² Session Explores New Ways of ‘Seeing’

Vision Monday's lenses and technology editor, Andrew Karp, introduced a dynamic Eye² session that explored how wearable and implantable technologies are creating new ways of “seeing.” Drawing an analogy with media theorist Marshall McLuhan's famous maxim, Karp said, “The deeper we get involved with wearable and implantable technology, the more the medium becomes the message, and the more we really become part of the Internet of Things.”

Jerry Legerton, OD, co-founder of the wearable technology company Innovega, provided an overview of eyewear wearables before seguing into a discussion of smart, sensor-enabled contact lenses. “This is an exciting new area that represents the confluence of vision care and the consumer electronics industry,” Legerton said. “I think the genius of the next decade is figuring out how to put the health care profession and consumer electronics under one roof. Where do we go from here? And where will we be on that technology adoption curve? Will we spiral downward or will we climb to greater profitability and success?”

Legerton said he believes consumers will embrace new wearables because they create enjoyable experiences. “As optometrists, our goal is helping our patients adapt to these new technologies,” he said.

In a similar vein, Michael McAlpine, PhD, associate professor at Princeton University, described how his research team learned to combine 3D printing with 3D scanning to create “smart prosthetics.” Using this “bio-augmentation” technique, the Princeton researchers created a functional, prosthetic ear and a unique contact lens that incorporates an LED display.

“Usually when people talk about bionics, they're referring to this idea that maybe you can



Jerry Legerton, OD, co-founder of Innovega.

Andrew Karp, VM's lenses and technology editor.



Michael McAlpine, PhD, associate professor at Princeton University.



Steven Prawer, PhD, professor at the University of Melbourne.



Ashish Ahuja, PhD, from Meta.

make robots more and more like humans, which is a very worthy goal,” said McAlpine.

“But we kind of had the inverse vision, which is can you actually make humans more and more like robots? How do you merge electronics and electronic devices with the human body? What our group has been doing is using 3D printing to overcome all these issues. You

have nano-inks which give you the functionality, you have micro-scale printing which is at the level of biology and then you can print into a macro-scale device that can actually make something you can hold in your hand.”

Steven Prawer, PhD, professor at the University of Melbourne, discussed the development

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'Smart Technologies Reshape the Patient Experience'

There are almost twice as many people in the world who have smartphones than there are people who have corrected vision," said Paul Karpecki, OD, FAAO, chief clinical editor of Jobson's *Review of Optometry*, to put things in perspective at the start of the VM Global Leadership Summit session on "How Smart Technologies are Reshaping the Patient Experience."

As moderator, Karpecki introduced the session's other two speakers—Michael Rogers, futurist for The New York Times and MSNBC, and Yaopeng Zhou, PhD, CEO of Smart Vision Labs, who invented technology that can turn a smartphone into an autorefractor.

Rogers started with his own observations of the Summit itself. "My head is swimming, and I'm a futurist," he said to describe his view of the "content-packed" morning's presenters. He then provided some perspective on how change will continue and grow exponentially.

"When I look ahead, I like to look back the same distance into the past," he said, showing how far we've come since 2006, when there was no iPhone, YouTube had just launched, a 24-inch LCD television cost \$3,000, and Facebook had 50,000 members and you needed a dot-edu address to join. As we move forward, "change is going to happen even faster," Rogers predicted.

Retailing in the Virtual World

"The virtual world is where more and more of our business will take place, and we are just at the beginning of the virtualization of the world, which will be just as big a transformation as urbanization," he said, citing the fact that Millennials and those even younger "can create and maintain meaningful virtual relationships. If you think things are happening quickly now, just wait," he said.

Because "the virtual world is where our customers will be, the key to create effective consumer experiences is seamless delivery. If you cannot fit



"There are almost twice as many people in the world who have smartphones than there are people who have corrected vision," said Paul Karpecki, OD, FAAO.

"In a virtual store, I should be able to replicate what I can do in a physical store," said futurist Michael Rogers.

"We shrunk a 55-pound machine to the size of a deck of cards," said Yaopeng Zhou, CEO of Smart Vision Labs, about his iPhone-based autorefractor.

into the pattern of a seamless migration between providers, sooner or later that's going to be a problem," he said.

From a retailing perspective, "in a virtual store I should be able to replicate what I can do in a physical store. The way we are going to get that information is through our social networks," he predicted.

Reinventing the Phoropter

Transitioning from Rogers' predictions to the next speaker's introduction of an iPhone-based autorefractor, Karpecki said, "The phoropter was invented within five years of the Wright Brothers flying the first plane; imagine we're still flying that same plane!"

While still slow to change, new refraction technologies are becoming available, Karpecki explained. "Refraction technology is going mobile," he said, stating that optometrists can either resist these new technologies or incorporate them into their practices. "Some are going to try to compete, and some are going to work with optometrists," said Karpecki. "That's why we're lucky to have Dr. Zhou, who wants to see how this technology will work best."

Mini Portable Autorefractor

Yaopeng Zhou, PhD, CEO of Smart Vision Labs, followed with a presentation of the smartphone-based wavefront aberrometer/autorefractor he invented to help address the fact that 1 billion people worldwide have uncorrected refractive error. "The wavefront aberrometer technology is not new," he said. "What's new about this is we put the technology on a smartphone. We shrunk a 55-pound machine to the size of a deck of cards," he explained about the product that started shipping three weeks before he appeared at the Summit.

He cited four scenarios in which technology such as this would be useful. The Smart Vision Backpack, equipped with the device and lenses, creates a mobile platform to provide "affordable eyeglasses on the spot" in underserved communities. As an alternative refracting device, it could also alleviate bottlenecks at a clinic's autorefractor. Because the device measures only one eye at a time with the other eye open, it relaxes accommodation, making it appropriate for screening children. Also, its portability makes it helpful for outpatient work, such as in a nursing home or other scenario in which the solution is brought to the patient. ■

jsailer@jobson.com

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Optical Retail Leaders Stay Connected to Stay Relevant

In the fifth session of the VM Global Leadership Summit, three key decision makers took the stage to discuss their strategies for developing meaningful relationships with customers, as well as how new technologies can facilitate the business-to-consumer bond.

Michael Devlyn, executive vice president of retail for the Devlyn Optical Group, an optical retail group based in Mexico with a total of 900 stores in Latin America and the U.S., connected the company's growth with its ability to adapt to distinct consumer environments. Over the course of its nearly 80 years in business, the Devlyn Optical Group has developed several divisions, each catering to a different category of customer.

The main strategy for growth, Devlyn said, is segmentation. In a pyramid-like structure, from the high end market at the top to the mass market consumers at the base, each of Devlyn's target markets is at a different "level" and thus is serviced through different brands. The group also operates separate divisions for the Hispanic market, convenience market and optometric rehabilitation sector, each incorporating new technologies to attract more customers.

Devlyn identified several examples of "innovations" the company has begun to explore, including the self eye test screening. Though eye exams on-the-go may be taken as a threat to many optometric businesses, Devlyn described the new technology as "a trend that can generate more awareness of eyecare" by reaching people who will eventually visit an optical practice. Additionally, the tool can free up time for doctors and make room for more exam lanes.

Antoine Amiel, vice chairman of the board of New Look Eyewear Inc., also pinpointed the segmented plan of action used to reach the New Look Optical Group's overall aim. The Group operates three independent store networks—



The retail panel included (l to r) FPOV's Andrew Ranson; Edward Beiner, the Edward Beiner Group; New Look Eyewear's Antoine Amiel; and Michael Devlyn, Devlyn Optical Group.

New Look Eyewear, Vogue Optical and Greiche & Scaff—each of which addresses different customers, Amiel said. In addition to having distinct retail environments, the Group also approaches marketing from separate standpoints for each market or "theme," vision care, fashion or value. "We operate each retail network independently so they each retain their own flavor," Amiel said.

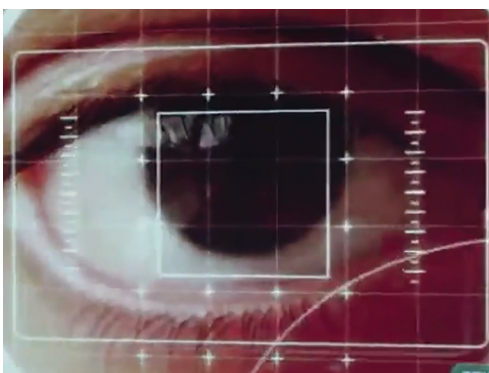
For Edward Beiner, president of the Edward Beiner Group, employee development plays a major role in the company's capacity for growth. Luxury sales training, customer service exercises,

technology tutorials, team building activities and brand experiences are leveraged to ensure each of the chain's 12 locations is operating efficiently and cohesively, along with staying on top of the latest trends. "It is a goal of the Group to be at the forefront of fashion and technology," said Beiner.

By employing a "360 marketing plan," which includes social media presence on platforms such as Instagram and Facebook and general web presence with the company website and e-blasts, the brand is able to stay top-of-mind and on trend. "Communication is continuously evolving and changing," Beiner said. "Being involved keeps us relevant to consumers."

Even while in the process of utilizing actionable information for their businesses to adapt and grow, each retail group communicated a need to remain adroit and flexible in a continuously changing consumer landscape. "We realize we are in the process right now of having to change," Beiner said. ■

— Catherine Wolinski



VM LEADERSHIP SUMMIT

Warby Parker's Blumenthal Makes Surprise Appearance

In a session on disruption at the conclusion of this year's VM Global Leadership Summit, a surprise guest brought the theme to life, appearing on stage in much the same way that the company he co-founded appeared on the scene a few short years ago, unexpected and unannounced.

The session got underway with the editor of Inc. Magazine and Inc.com, James Ledbetter, discussing disruptive innovations that have proven to blindsides traditional businesses with their innovations. "We are living in a time of disruption," he said, and disrupters "are going to change the world whether the world wants to change or not."

On cue and in keeping with this presenter's theme, Neil Blumenthal, co-founder of Warby Parker, one of eyewear's most disruptive companies in recent memory, then appeared as a surprise guest.

In an interview format with Ledbetter, Blumenthal candidly and humorously shared information about the e-tailing start-up that has grown incredibly fast and has already begun venturing into brick-and-mortar stores. Blumenthal credited

getting the price point right and creating a brand that speaks to Millennials as two primary reasons for the company's remarkable growth. Still, he said, "We deliberately kept the throttle down because we believe in sustainable growth, not growth for the sake of growth."

Happiness Breeds Success

Another reason for the company's success that Blumenthal cited was "simplifying the practice of buying glasses. A typical optical shop is confusing and not fun," he observed. "It should be fun," he added, describing some of the reasons he believes it's not: "What about it doesn't make it fun—pricing, access to eyewear, and upcharges. The consumer just cares if overall this is a good experience or not. We came at it from a culture-centric viewpoint—How can we make the customer happy?"

To gauge whether the company is growing at the right pace, Blumenthal cited the company's high Net Promoter Score (NPS), a statistic that measures how likely a consumer is to recommend a particular company. He said that in a competitive landscape, Warby Parker's NPS in the 80s

compares to the larger optical chains that he said have Net Promoter Scores below 25.

Much of the conversation revolved around Warby Parker's Buy-One-Give-One policy that provides a pair of eyeglasses to someone in need for every one the company sells. Starting off with a compliment, "The optical industry has a very proud tradition of giving back to the community," he added, "It's a smart way to run a business long term. What kind of business do we want to build, to be excited to go to all day that has a positive impact on the world?"

He then explained that although it might appear that the younger Millennial generation is more socially conscious than previous ones, it's not necessarily true. "This is the first generation that has this level of access to information. What compels people to act is information. This generation is not any more ethical than other generations. People have always cared, but now they are able to act on that caring." Ultimately, this impacts the business. "An articulated mission of caring has a bigger impact on the bottom line and on recruiting and retaining talent," he said.



Vision Monday's Marge Axelrad welcomed surprise guest, Warby Parker's Neil Blumenthal, to the stage.

"An articulated mission of caring has a bigger impact on the bottom line," said Warby Parker co-founder, Neil Blumenthal, about the company's Buy-One-Give-One policy.

"We are living in a time of disruption," and disrupters "are going to change the world whether the world wants to change or not," said Inc. editor, James Ledbetter.

What's In Store for Warby Parker

When Ledbetter asked whether Warby Parker would become a lifestyle brand and begin offering “sweaters and sandals,” Blumenthal said, “We’re still trying to figure it out. We want permission from our customers to go into other categories.” He did cite collaborations that resulted in books as well as LPs and CDs with music by Beck.

About whether the company would ever go public, Blumenthal said, “People who run public companies don’t seem to have as much fun. I’d like to stay private as long as humanly possible. A lot of activity that used to take place only in the public market is now taking place in the private market.” He cited changes in the venture capital market. “There are opportunities in the private market for early investors to get out without going public or acquisition,” he said.

Questions from the audience concluded the session and the day’s events. When asked about new products that are above the company’s ini-



tial price point of \$95 for a pair of eyeglasses, such as progressives selling for \$295, he said, “Progressives elsewhere would be well over \$800. The hope is that we master one area before moving into a different area.”

When asked who’s gotten it right, Blumenthal said that “nobody’s gotten it right in e-tail and brick and mortar.” However, he did flatter

Apple’s Genius Bar, saying that it was the influence for the reference desks in Warby Parker’s brick-and-mortar locations.

“The future is an intersection of bricks and mortar and e-tail,” said Blumenthal. “We’re still figuring out how many brick-and-mortar stores.” ■

jsailer@jobson.com

VM Launches Special Landing Page on VisionMonday.com for Summit Coverage

NEW YORK—*Vision Monday* has launched a special landing page and resource center on *VisionMonday.com* housing all coverage from the 2015 Leadership Summit. The site, www.VisionMondaySummit.com, will highlight all overview stories summarizing the presentations of the day as well as slideshows of attendees and presenters.

In addition, highlight videos of each session, the VM Summit Program and speakers bio can also be accessed. VM Summit Archives, with links to coverage of past years’ Summits, and ongoing coverage of the Summit’s themes, will be housed here as well.



VM LEADERSHIP SUMMIT

Scene at the VM Summit



1.



2.



3.



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5.

1. (L to R) Walmart's James Muldoon, Teri Johannesen and Bill Johannesen enjoy the refreshments before the Vision Monday Global Leadership Summit begins.

2. (L to R) Zeiss' Jon Goldberg, Karen Roberts, Bernadette Hiskey and Pamela Andrews meet together before heading into the Summit.

3. (L to R) Centennial Optical's Allen Nightingale, and IRIS The Visual Group's Lynn DeKoster, David Shwartz, OD, and Eric Babin are excited to hear the speakers discuss the future of the optical industry.

4. (L to R) Europa Eyewear's Scott Shapiro, PECAA's Chris Millet and Lance Anderson, OD, and Europa International's Jill Burrowes wait in the lobby before the Summit begins.

5. MyEyeDr's Sue Downes and Schaeffer Eye Center's Jack Schaeffer, OD, reunite for the Summit.



6.

6. Review of Optometry's Paul Karpecki, OD, and the Power Practice's Gary Gerber, OD, relax during the lunch intermission.



7.

7. Paul Geneau, OD, and Laurie Clement, OD, of the Canadian Association of Optometrists, take a break and enjoy the event's luncheon.



9.

8. Gregg Ossip, OD, and Luxottica's Holly Rush are excited to sit in on the second half of the Leadership Summit.



8.

9. (L to R) HPC Puckett's Hunter Puckett, PECAA's Jamie Hughes and Lance Anderson, OD, and Vision West's Joseph Mallinger, OD, prepare for another round of speakers in the afternoon.



10.

10. Vision Source's Derrick Artis, OD, and Alcon's Dwight Akerman, OD are among the attendees at the Leadership Summit.

Eye² Session: New Ways of ‘Seeing’

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by Bionic Eye of Australia of an implantable device that is restoring sight to people with end-stage macular degeneration and retinitis pigmentosa. “The device stimulates the inner retina by bypassing the damaged photoreceptors,” he noted.

Prawer added that the goal for the device is to “restore functional vision so people can navigate and recognize large type.” He presented a video clip featuring a woman who has had the device implanted in her eye and who is learning how to see with it.

One of the challenges in designing the device is to protect the electronics from the body, and vice versa. Prawer said his research team at Bionic Eye of Australia use diamonds

in the manufacturing process because of their strength and durability. Another challenge is combining functionality and aesthetics. “In order for our devices to succeed, they must work well and be beautiful to the extent they can be,” he remarked.

Another dimension of vision was presented by Ashish Ahuja, PhD, of Meta, a company that is a fast-rising star in the field of augmented reality (AR) eyewear. “Our glasses offer the complete augmented reality experience. You can see, create and interact with virtual objects and apps inserted into one’s real environment. I’m talking about replacing the keypad. I’m talking about replacing the mouse.”

To illustrate his points, Ahuja showed a video that demonstrated how Meta glass wearers can

manipulate virtual objects. “You can see that hand gestures are being picked up,” he said, referring to the Meta users in the video. “This is an application that lends itself to three-dimensionality. It doesn’t lend itself to a book. It doesn’t lend itself to a monitor.”

Ahuja said that Meta recently began shipping a version of Meta to software developers who are creating applications for it. As the company reads a consumer version of the smart glasses, Ahuja said it is positioning itself to “lead the next evolution of AR, replacing smartphones and tablets with a more natural-to-use system set entirely in a pair of glasses.” ■

akarp@jobson.com