Mr. Nils Berger
CEO & Founder
Viewpointsystem

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VIEWPOINTSYSTEM

Bridging the Healthcare World with Digital Services

The healthcare sector is adopting various remote-based solutions to provide their products and services over the digital medium. It is also jumping on this ride with telemedicine platforms to deliver virtual care to patients.

Now that telemedicine is settling in, it is time to add more immersive solutions to help healthcare professionals provide a next-level virtual care experience. A futuristic company enabling healthcare professionals to have a real-time view of patients through smart glasses with integrated eye tracking technology is **Viewpointsystem.**

Founded in 2016, the company makes smart glasses solutions for the industry to have direct eye-to-eye live access to remote locations. Its smart technology solution is making it possible for professionals to go beyond communication barriers to interact virtually with people effortlessly.

In the below interview with Viewpointsystem's innovation-driven **CEO** and **Founder, Mr. Nils Berger** shares detailed insights about the company's smart glass solutions and how they provide every other industry with the opportunity to take their remote solutions to the next level.

The following are the excerpts from the interview.

Please brief our audience about your company. Kindly tell us the source of inspiration for starting the healthcare company.

At Viewpointsystem, we develop and produce internationally awarded smart glasses based on eye tracking. Headquartered in Vienna, Austria, we currently employ 60+ people from more than 20 nations in the areas of research and development, software and hardware development, production, marketing, and sales.

It all started in 2016. I was given the opportunity to transition a university spin-off specialized in mobile eye tracking studies into a company. This research and consulting spin-off developed part-functional samples of smart glasses to conduct mobile eye tracking studies. When these functional samples were presented to me for the first time, it was literally an eye-opener for me. With eye tracking technology, you can visualize people's gaze behavior and—as a next step—digitize it. For example, during a live video stream, you can see in real time what a person is looking at—visualized as a white circle—and what he or she is actually perceiving and focusing on.

In my previous companies, I very often had to deal with the production managers of manufacturing companies. Fast troubleshooting and supporting the teams in service and maintenance, across national borders, time zones, and language barriers, were always the top issues. And these smart glasses with integrated eye tracking were the answer to it: they connect people and experts around the world within seconds, without having to make interpretations anymore where someone is looking at, and without the need to travel.

In healthcare, you can think about training first responders or students, providing live support during surgeries, or documentation of processes, amongst many other areas.

After this first eye-opening moment, however, there was still a lot of work ahead of us. In the following years, we worked hard to further develop the smart glasses until they were ready for the market in 2020.

Tell us more about the products and services that make your company stand out from the competition.

Our aspiration is nothing less than producing "the simplest smart glasses in the world". What exactly does that mean in

practice? Well, unlike many other smart glasses, our VPS 19 are ready to use out-of-the-box for immediate streaming and remote support, as well as for the recording of eye tracking training videos.

Even technologically inexperienced staff can operate our smart glasses easily and instantaneously. This is particularly important in healthcare, where the user must concentrate fully on the patient and the medical procedure and not on operating the technology. The technology should not distract but support the user in his work every second.

Another major advantage of our smart glasses is that they are very light, weighing only 43 g, and comfortable to wear for hours. The design is socially acceptable, and the glasses actually look like a pair of glasses, not like a clunky head-mounted device.

Tell us about your company's contribution to advancing the healthcare industry. Also, tell us about the latest solutions offered by your company to fulfill clients' requirements.

Remote expert support is an extremely relevant use case in many industries. And the potential applications of our smart glasses are particularly diverse in the healthcare sector. Medical care can be improved significantly by connecting with remote specialists. Using the glasses, the remote expert gets the visual focus point of the person on-site streamed into his preferred web browser on any browser-capable device in real-time.

The eye-tracking-based display of the gaze point in the video stream enables the remote specialist to see exactly where the person on-site is looking and what he or she is concentrating on. Thus, the expert can guide the person on-site precisely from a distance - via audio and through drawings or sketches on the screen. The glasses thus provide "expertise anytime and anywhere" without the need to travel.

Eye tracking technology is an advantage in telemedicine and during critical interventions such as surgeries, but also in staff training and education. The training videos created with the smart glasses provide the trainees a first-person view of medical interventions wherever they are and allow them to understand the medical reasoning process without direct bedside attendance. Especially during the pandemic, the need for innovative new ways to train employees remotely and in the home office has increased dramatically.

Our smart glasses are also beneficial for the maintenance and servicing of medical equipment. The technical expert or inspector can be connected from anywhere in the world and get a first-person view of the equipment's condition. He can guide repairs without having to travel. The operator of the medical equipment thus saves time, travel costs, and improves the carbon footprint.

To make our smart glasses even more user-friendly, we recently introduced "auto-calibration". This new feature enables immediate detection of the gaze without having to calibrate the system to the eyes first. This allows the glasses

to quickly change users and also compensates if the glasses slip during use.

We also enable customized features. For example, a customer recently requested a "live heatmap" that determines and visualizes in real time the areas and objects that attract the attention of the user. After a successful field test with the customer, we gave this unique feature into series production.

Please brief us about your journey in the industry and how you have made the company excel in its niche market.

I have a background in business administration and strategic management. After my university studies, I held various positions in marketing and sales and also founded several companies. About ten years ago, as the CEO of a robotics and automation company with a global footprint, I gained deep insights into the manufacturing industry and the needs of production companies - today's key industries at Viewpointsystem.

This knowledge has also helped me in the healthcare sector. I did not have any particular industry expertise, but hopefully, a good sense of what customers want and need. And so, we adapted our smart glasses to the specific needs of the healthcare business.

All in all, I think it is a mixture of fate, decisiveness, and tenacity that has helped me succeed in the industry. I never give up and always believe that I can achieve anything if I just want to. Perhaps my private passion for motorsports, especially endurance racing, also helps. This sport trains both the ability to make quick decisions as well as perseverance and team spirit.

What is your opinion on the necessity for healthcare companies to align their offerings with the latest technological advances, especially when it comes to catering to ever-evolving healthcare needs?

COVID-19 and the consequences in terms of contact and travel restrictions have brought a rapid increase in digitization in many industries, and we are seeing this in the healthcare sector as well.

We believe that the need for remote support and digital assistance systems will continue to grow. In times of budget pressure and lack of specialists, the need to ensure medical

expertise and know-how when there is no expert on site will increase. Healthcare companies are therefore well advised to develop and test technologies that meet this need and digitally assist medical staff in their work.

The emphasis here is on "assist." We are convinced that, particularly in healthcare, all decisions must ultimately be in human hands. Technology must always be human-centric. Technology can improve training; it can support medical staff, it can collect medical data, and provide a basis for decision-making. But it can and should never replace human thinking and decision-making.

In your opinion, what could be the future of the healthcare industry post-pandemic? And how are you strategizing your company's operations for that future?

The need for smart glasses-based remote support systems will continue to grow even after the pandemic. Medical expertise anytime, anywhere - this use case simply has so many advantages for companies and medical institutions. We also expect to see more use of eye tracking in medical practice in the future, such as to quickly diagnose certain diseases in the emergency room or to detect whether a patient is under the influence of drugs. Mixed and augmented reality will also continue to find their way into medical practice.

All of these applications require particularly robust eye tracking so that the technology can really develop its full potential in practice. One of the major tasks for the next few years will therefore be to develop new form factors, with which eye tracking technology can be integrated into external devices, for example in augmented and mixed reality glasses. For this very purpose, we have developed a completely new module series, Digital Iris Inside.

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With these standardized, preconfigured sensors, we will soon be able to offer professional eye tracking to other technology providers.

As an established leader, what would be your advice to the budding entrepreneurs and enthusiasts aspiring to venture into the healthcare business?

Many players in our industry, the global smart glasses market, have done a miserable job of managing stakeholder expectations for years. B2B customers and consumers were promised miracles with regards to the technical possibilities and usability of the devices. And there was often great disappointment when yet another device was launched and failed to live up to the high expectations in practice. This has permanently shaken the confidence of end users and ultimately damaged the entire industry. So, my advice is to under promise and overdeliver, and don't be blinded by the wizards of self-marketing!

How do you envision scaling your company's services in 2022 and beyond?

With our current smart glasses, we already have around 150 customers in Europe, North America, and Asia. We are "born global" and have established additional subsidiaries and sales offices in Europe and North America at an early stage.

In the coming years, we will accelerate our growth in Europe and expand into the US market. Our goal is to strengthen our position as the European hidden champion for smart glasses-based remote support, training, and documentation. Successfully completed projects in European hospitals and companies involved in the design, construction, and operation of healthcare facilities can now serve as a blueprint for expanding our market reach.

With our upcoming sensor technology, we will establish a second strategic business unit and provide unique eye tracking technology to other technology companies worldwide. High-end eye tracking technology from Austria to the world!

Please give us an overview of the feedback that you have received from your customers. Also, share with us various awards and recognitions obtained by Viewpointsystem.

Our customers in the healthcare sector include the Medical University of Vienna, which uses our smart glasses for video-based training and live streaming during neonatal procedures. The Austrian Red Cross optimized processes during disaster relief trainings with the help of the glasses. And Vamed AG, an Austrian company active in the planning, construction, and operation of healthcare facilities, uses our smart glasses for the maintenance of medical equipment and technical systems in hospitals.

We are proud to have won the prestigious CES Innovation Award already three times. In 2017 and 2019, we received the award for our smart glasses, and in 2022 for our new sensor technology. Recently, Gartner awarded us with the "Cool Vendor" tag, as the only European company that was named in the prestigious "Cool Vendors in Frontline Worker Technologies" report. This underlines the practicality of our smart glasses.

A few months ago, Austrian Standards honored us as the winner in the "Developing Future Technology" category of the Living Standards Award. Taking standards and norms into account is a matter of course for us. Adhering to them stands for quality and ensures the safety of the wearer, which is especially important for a product that is worn close to the body, such as smart glasses. We are sure that these will not be our last awards!