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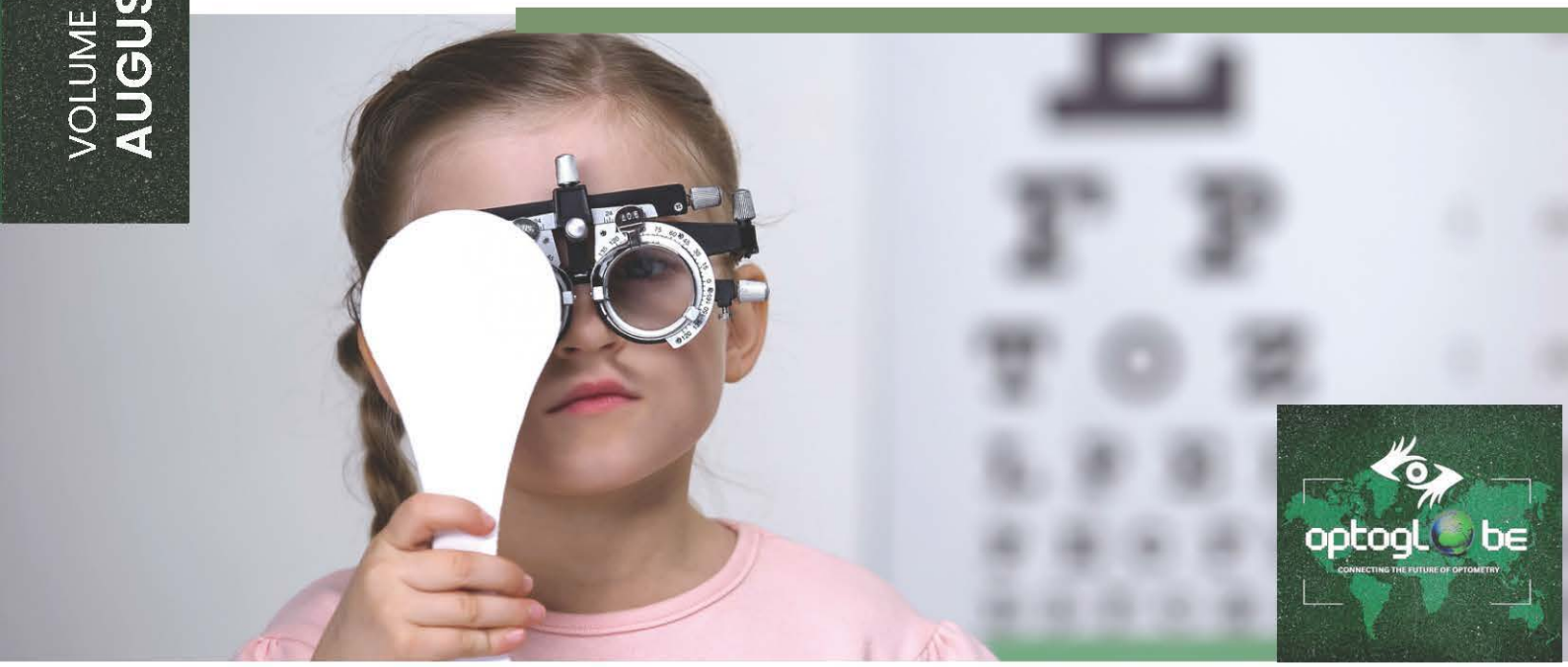
THE OPTOGLOBE

NEWSLETTER



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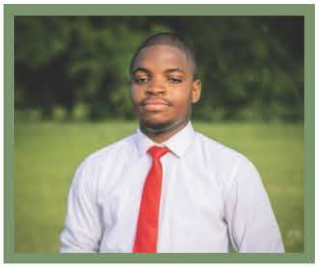


Eyes on the Future:
A Journey Around the Globe

Read about the historic first global Optometry students summit and the journey of OPTOGLOBE since inception.

VOICES OF CHANGE: THE OPTOGLOBE SUMMIT

-Chinelo Ikeli (Editor-in Chief)

The summit was graced by a lineup of distinguished speakers who in addressing pressing topics, brought their expertise and insights to the fore:

BIONIC EYE:AN OCULAR PROSTHESIS

Ammara Zafar Taj (Optometrist, Pakistan)

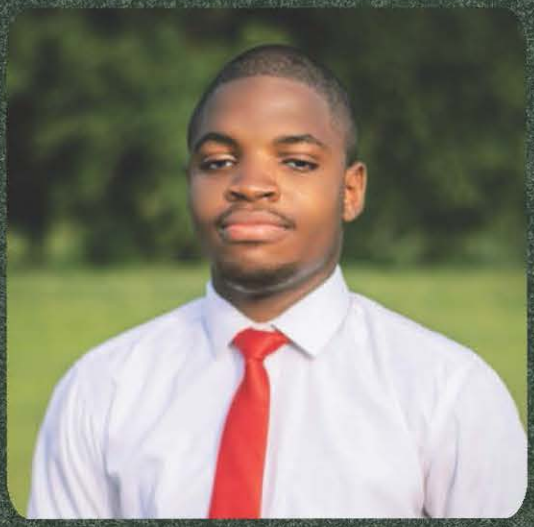
Ocular prosthetics have been an integral part of eye-related research for a long time, primarily, for cosmetic capacity or treating anterior segment issues. Patients who have gone through procedures like exenteration or have ve phthisical eyes are fitted with prosthesis for the globe to maintain its shape and to avoid facial asymmetry. There is a prosthesis (for e.g. like osteo-odonto-keratoprosthesis).

READ MORE ON PG6

EYES ON THE FUTURE

A Journey Around the Globe (OPTOGLOBE)

August, 2024



In a world where global challenges demand unprecedented solutions, the first global optometry student summit, held from July 11-14, 2024. It marked a historic moment for the field of optometry. With over 1,500 participants joining from across the globe, this ground breaking event set the stage for uniting and addressing the global challenges facing optometric practice and the students.

It all started with a vision. Pemije Gadimoh, a driven student from the Department of Optometry at the University of Benin, Nigeria,

recognized a gap in the global engagement of optometry students, the limited opportunities for internships and volunteer work, and he felt a powerful urge to connect students worldwide and give a common voice to address these challenges

The Dream Begins

On April 7, 2024, this vision materialized as OPTOGLOBE, the largest global community of optometry students. Reaching out to students all over the globe to join the community, OPTOGLOBE extended this effort by organizing the first-ever global Optometry student virtual summit to educate students on the need for a global student community.

Spanning four transformative days, the summit took participants on a global journey

- July 11: Asia took the centre stage with discussions on the region's unique challenges and advancements.
- July 12: The focus shifted to the Middle East, North Africa, and Arabic-speaking countries, highlighting specific needs and innovations in these areas.
- July 13: North and South America were in the spotlight, discussing diverse practices and research across the Americas.
- July 14: The summit concluded with a focus on Europe, Australia, and Africa, presenting different perspectives and developments in these areas.

VOICES OF CHANGE

Chinelo Ikeli

(OPTOGLOBE Editor–In Chief)

The summit was graced by a lineup of distinguished speakers who in addressing pressing topics, brought their expertise and insights to the fore:

•July 11: Dr. Abdullah Nasir, Dr. Yogita Rajghandi, Dr. Jenn Viñola, and Kinza Zeb.

•July 12: OD Dania Alomran, OD Eman Saleh Alshahrani, Prof. Dr. Mudher Alasaly, Dr. Tarek Mahmoud, and Prof. Dr. Mustafa Abdu Ali Mohammed.

•July 13: Dr. Hector Santiago, Megan Webber, Erickson Jean François, and Anna Krawiec.

•July 14: Dr. Levi Osuagwu, Dr. Anderson Chimeziri, Dr. Maryam Jabbar, Donkoh Mark, and Luke Quadros.

Key Takeaways

•Dr. Hector Santiago, President of VOSH International, focused on worldwide challenges like uncorrected refractive errors and the need for cultural competence in healthcare.

•Dr. Anderson Chimeziri, President of the Nigeria Optometric Association, addressed curriculum and scope disparities, proposing solutions such as an international board exam and increased student involvement in global organizations.

•Dr. Maryam Jabbar from the University of Faisalabad, Pakistan, presented on the various career opportunities within Optometry.

•Dr. Mustafa Abdu Ali of the University of Jeddah reminded attendees of their critical role in shaping the future of Optometry.

•Dr. Tarek Mahmoud (MBBS, MD) concentrated on the business and financial prospects in healthcare.

•Dr. Jennifer Lyn Viñola, the Dean of Administration and Quality Assurance in the College of Optometry, Manila Central University speaks about student exchange programs and its benefits.

•Dr. Yogita Rajgandhi, the Vice President of Delhi Optometrists Association, emphasized on the need for professional advancements and curriculum disparities.

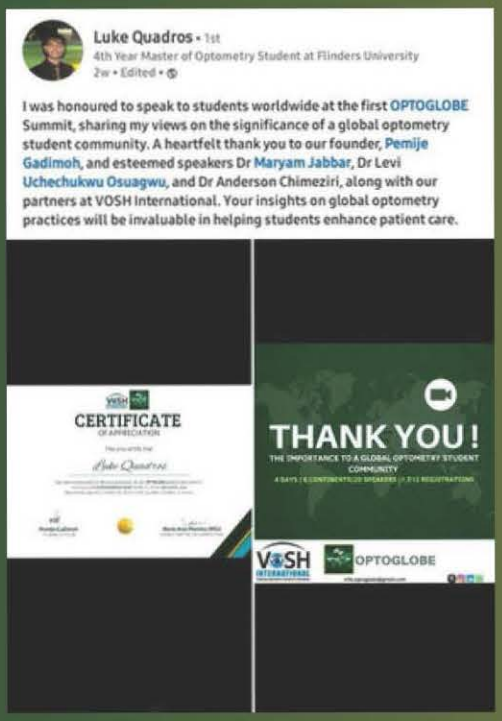
•Dr Uchechukwu Levi Osuagwu, President American academy of Optometry (African chapter) shared his inspiring journey, discussing the impact of student networks and encouraging students to pursue their passion fearlessly.

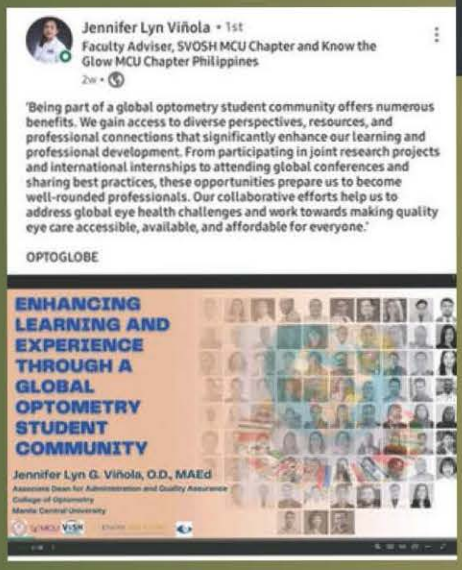
And so much more that we can't cover in one newsletter.

Student Participation: A Vital Component

The summit wasn't just about listening—it was also about engaging. Students from around the world actively participated in interactive Q&A sessions, asking pressing questions and contributing to the global dialogue.

And to recognize the active participation of the students, certificates were awarded to attendees on request, providing them with a valuable addition to their professional portfolios.





Our Esteemed Partners

The success of the summit was made possible by the invaluable support of our partners, **VOSH/International**. Their contributions ensured the smooth execution of the event, and our gratitude goes out to them.

VOSH INTERNATIONAL
Volunteer Optometric Services to Humanity®

THE OPTOGLOBE/ KNOW THE GLOW "GLOW AWARENESS" VIDEO CONTEST

Join the KnowTheGlow/OPTOGLOBE "Glow Awareness" Video Contest!
Are you an optometry student or professional with a desire to make a difference? Enter our unique, free-to-enter competition and help us raise global awareness about leukocoria, also known as "the Glow," and the childhood blinding diseases it can indicate.

⬭

Show us your original video content and be part of this vital cause! Let's illuminate the world together. ✨
Learn more and enter today: https://knowtheglow.org/2024-contest/
- 🏅 First Place: $500 USD
- 🏅 2nd Place: $300 USD
- 🏅 3rd Place: $200 USD

AN OCULAR PROSTHESIS

BIONIC EYE

Ammara Zafar Taj (Optometrist, Pakistan)

Ocular prosthetics have been an integral part of eye-related research for a long time, primarily, for cosmetic capacity or treating anterior segment issues. Patients who have gone through procedures like exenteration or have phthisical eyes are fitted with prosthesis for the globe to maintain its shape and to avoid facial asymmetry.

- There is a prosthesis (for e.g. like osteo-odonto-keratoprosthesis).
- Which are currently being used for patients who are unable to go through a keratoplasty, but none has been successfully able to restore vision in patients suffering from retinal ailments like retinitis pigmentosa (RP) or Age-related macular degeneration (ARMD). The "Bionic eye" is one such attempt. It is an ocular prosthesis aimed at helping patients with "hand movement" or NPL (no perception of light) vision due to a problem with the retina or the optic nerve.
- This idea dates back to the 18th century presented by Benjamin Franklin & Charles Roy.

- It detects light and then converts it to electrical impulses which then can be detected by the visual cortex and converted into an image (exactly like a human eye is capable of doing so effortlessly). But in order for such a device to work, there needs to be at least a developed optic nerve & a semi-functioning retina, which in turn is used to transmit the converted light impulses to the visual cortex.

If a patient has no vision or decreased vision since birth (for e.g. ROP) the optic nerve will never be properly developed.

AN OCULAR PROSTHESIS

BIONIC EYE

Ammara Zafar Taj, Pakistan

Therefore, a good candidate is one who was able to see at some point in their life. In conditions like ARMD or RP, there may still be enough functioning retinal ganglion cells to allow such a device to function. These devices (in most cases) include an external camera, a transmitter & an internal microchip.
An early form of such a device was tried on an RP patient in 2012, where the patient did report seeing some light.

- Since then with the advances in medical science, many different companies and labs have multiple projects such as the Argus II implant (Argus Retinal Prosthesis or Bionic Eye) being developed by second Sight medical products inc. which received approval in Europe in 2011 & the US FDA in 2013.
- Further research needs to be done, to put into production models that are efficient enough and cheap enough to treat numerous patients especially for third world countries like Pakistan where diseases such as RP and ARMD are proving to be irreversible causes of partial or complete blindness for patients in most age demographics.

"Vision is the art of seeing what is invisible to others."
Jonathan Swift

"The best and most beautiful things in the world cannot be seen or even touched—they must be felt with the heart"
Helen Keller

OPTOMETRY AND TECHNOLOGY

Orji Divinegift Chinweotuto

Key Areas Where Technology is Impacting Optometry:

1. Diagnostic Tools

- Optical Coherence Tomography (OCT): This imaging technique provides detailed cross-sectional images of the retina, helping detect conditions like glaucoma, macular degeneration, and diabetic retinopathy.

- Digital Retinal Imaging: High-resolution images of the retina aid in early detection of eye diseases and allow for more accurate monitoring of changes over time.

2. Refractive Technology:

- Wave Front Aberrometry: This technology measures how light waves travel through the eye, offering precise prescriptions for glasses and contact lenses.

- Autorefractors and Autokeratometers: Automated devices provide quick and accurate measurements of refractive errors and corneal curvature, essential for prescribing corrective lenses.

3.Teleoptometry:

- Telehealth Services: Remote eye exams and consultations have become more common, especially during the COVID-19 pandemic. These services increase access to eye care, particularly for patients in remote areas.

- Mobile Apps: Various apps help patients perform basic vision tests at home, track their eye health, and even remind them to take breaks to reduce digital eye strain.

4. Treatment Advancements:

- Laser-Assisted In Situ Keratomileusis (LASIK): This popular laser eye surgery corrects refractive errors like myopia, hyperopia, and astigmatism.

- Orthokeratology (Ortho-K): Specially designed contact lenses worn overnight reshape the cornea, temporarily correcting myopia and reducing the need for daytime lenses.

OPTOMETRY AND TECHNOLOGY

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. Smart Glasses and Wearable Technology:

- Augmented Reality (AR) Glasses: These devices can assist individuals with low vision by enhancing their visual experience, providing real-time information, and aiding in navigation.
- Vision Therapy and Training: Wearable devices and software programs designed for vision therapy help treat conditions like amblyopia (lazy eye) and convergence insufficiency

Merits Of Technology In Optometry

- Improved Diagnosis: AI algorithm can analyze large datasets quickly, aiding in early disease detection. It helps give optometrist accurate diagnose of eye condition and determine whether a patient should be monitored or referred forfurther treatment.
- Efficient Workflow: Technology streamlines processes, allowing optometrist to focus on patient care thereby reducing the number of unnecessary referrals to eye hospitals and reduce the demand on ophthalmology services – which in turn will help to reduce waiting list of patients
- Enhanced Patient Outcome:Technology helps optimize treatment plans, leading to better results AI can detect early warning signs of progressive eye conditions like glaucoma before optometrist/ ophthalmologist can . Also it reduces administrative burden on optometrist by quickly analyzing scans and identifying patterns that may be difficult – or take longer for optometrist to analyze.
- Data Driven Insights: Technology provides evidence-based insight for personalized care. In countries where there are high levels of eye disease, technology can help technicians diagnose and triage of some eye conditions especially when there are low numbers of optometrist/ophthalmologist
- Remove the scope for human error.

OPTOMETRY AND TECHNOLOGY

Orji Divinegift Chinweotuto

For example, optometrists spend a lot of time reviewing and interpreting eye scans.

They need to identify any abnormalities within those scans, reach an appropriate diagnosis, assess the severity/grade of the diagnosed condition, and then determine whether the patient should be monitored or referred for further medical intervention. It takes years of training and experience to be able to do this effectively, thereby, optometrist resulting to the reliability of technologies for its accuracy.

Demerits and Challenges

While the benefits of using AI in ophthalmology are clear, it's not without its drawbacks;

They include;

- Limitations of AI: AI is accurate within its trained scope but may struggle with novel cases or anomalies not in its database
- Ethical and Legal Implications: Optometrits must navigate the ethical use of AI and patients privacy
- Fear of Job Implictions: Rather than fearing job loss, optometrist should embrace AI as a tool to enhance patient car

SUMMARY

Optometry`s integration with technology holds promise for early diagnosis and better understanding for cognitive health These technological advancements in optometry not only enhance diagnostic precision and treatment efficacy but also improve patient access and experience, paving the way for more comprehensive and personalized eye care.

Technology is revolutionizing optometry, and OD`s who embrace it will thrive in providing high quality eye care.

LOOKING FORWARD

With over 1,500 participants, the summit was evidently a resounding success.

What's Next for OPTOGLOBE?

The future is packed with promise as plans are already in motion to host a future physical meeting, bringing together student delegates from across the globe to share, learn, and network with one another.

OPTOGLOBE is on the move and is offering a glimpse into a future where global dialogue and innovation will drive the advancement of Optometry.

Join this train and lend your voice to the cause.

OPTOGLOBE: Connecting the future of Optometry.

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Thank you for reading!

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