

Brainlab and the AO Foundation Collaborate on the Future of Immersive Medical Education and Training

Brainlab and subsidiary Level Ex working closely with the AO to deliver extended reality technology for best practices in education and training

Munich, June 22, 2023 – **Brainlab**, a digital medical technology company, announced today an expanded collaboration outlining initiatives in their ongoing work with the **AO Foundation**. Signed at the annual AO Trustees Meeting—held this year in Sydney, Australia—the collaboration showcases both parties’ dedication to advancing medical education, delivering on a shared belief that immersive education is the catalyst for change in surgical practice and improved patient outcomes.

Incorporating Brainlab technology into AO courses will increase knowledge acquisition, enhance decision making and improve coordination of skills, all within a safe and engaging setting. The AO will leverage Brainlab technology, including **Mixed Reality Viewer**, for craniomaxillofacial (CMF), spine and trauma education. This platform provides an immersive experience for physicians by offering 3D visualization of medical images, allowing the user to interact with 2D images and corresponding 3D patient models. Signature AO events, e.g., AO Davos Courses and AO regional events will be equipped with this advanced training offering that features Brainlab **Spine** and **CMF Elements** software for pre-operative planning and case review.

The AO, Brainlab and its subsidiary, **Level Ex**, are working to accelerate the adoption of new skills and techniques using video game technology. Using Level Ex technology, the parties will transform AO clinical guidelines into game mechanics that will feature accurate, physics-based simulations. They will also collaborate on a new spine surgery video game—with a dedicated curriculum focused on instilling the expert skills needed for successful spine procedures using the neuroscience of play.

The AO is committed to collaborating with Brainlab on an AO-recommended surgical navigation workflow for spinal procedures. The focus will be on training how to achieve the best accuracy at every step of the spinal procedure to improve patient outcomes. The solution relies on high imaging quality, precise pre-planning supported by AI-driven anatomical mapping and patient registration. In addition, the workflow will have a focus on navigated instrumentation that aims to decrease pressure on the spine to further increase accuracy and address the specific challenges of the cervical spine. The AO plans to introduce this workflow and associated technology into certain activities within the AO Education Institute and the AO Technical Commission.

“Brainlab and the AO have worked together for decades and are mutually dedicated to accelerating the adoption of new technology and clinical workflows to improve patient outcomes globally,” said Stefan Vilsmeier, Founder and CEO, Brainlab. “We’re excited to expand our collaboration and have a shared vision to create an Extended Reality Center for Immersive Surgical Education.”

“Since the 1990s, the AO and Brainlab have worked together on various projects focusing on computer guided applications,” said Prof. Dr. Florian Gebhard, President of the AO. “Teaching has been, is and will be the major focus in the AO—today we are excited to start the integration of ‘extended reality’ in our teaching offerings together with our strong partner, Brainlab. We expect a huge impact on our learner experience using this technology. In parallel, the respective Technical



Commission Expert Group will evaluate options for clinical extended reality applications, together with Brainlab, following our mission to improve patient care outcomes."

About Brainlab

At Brainlab, we digitize medical workflows, from diagnosis to therapy, to offer clinicians and patients better treatment possibilities. Our innovative digital ecosystem forms the basis for modern healthcare technology in 6,300 hospitals in 120 countries. At the forefront of health technology for over 30 years, Munich-based Brainlab employs around 2,200 people with expertise across the entire healthcare value chain in 25 locations worldwide.

For more information, please visit [Brainlab](#) and follow on [LinkedIn](#), [Twitter](#), [Facebook](#) and [Instagram](#).

About AO Foundation

The AO is a medically guided, not-for-profit organization, a global network of surgeons, and the world's leading education, innovation, and research organization specializing in the surgical treatment of trauma and musculoskeletal disorders. The AO has a global network of over 520,000 healthcare professionals. Each year over 870 educational events are offered by the AO around the world, supported by nearly 8,000 faculty members and attended by over 82,000 participants. The AO has approximately 20,000 surgeon members working in the fields of trauma, spine, craniomaxillofacial, veterinary, and reconstructive surgery. For more information, visit: www.aofoundation.org.

For more information, visit the [AO's website](#) and follow on [LinkedIn](#), [Twitter](#), [Facebook](#) and [Instagram](#).

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