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EXCLUSIVE

XR TECH A.Ş.
FUTURE SOLUTIONS

XR HOSPITAL

NEXT GEN HEALTHCARE

XR Hospital

Digital Twin Hospital as a platform for education, training & collaboration

- XR Tumor Board
- XR Patient Care
- XR Medical Imaging
- XR Cardiology Space

XR Conference Auditorium

Lecture & Conferences in immersive world

XR Human Resource Space

Onboarding, Talent Development & HR Collaboration

Abstract

Strategic Rational
Technological advancement and the COVID-19 pandemic have brought virtual learning and working into our daily lives. Extended realities (XR), an umbrella term for all the immersive technologies that merge virtual and physical experiences, will undoubtedly be an indispensable part of future clinical practice. The intuitive and three-dimensional nature of XR has great potential to benefit healthcare providers and empower patients and physicians. In the past decade, the implementation of XR into medical education and practices has flourished such that it is now integrated into medical training, patient education, pre-procedural planning, intra-procedural visualization, and post-procedural care.

XR as enabler for high value ecosystem
The implications of the COVID-19 pandemic revealed pre-existing challenges also in Europe related to the degree of
digitalization in education (VET) and the shortage of healthcare workforce. Thus, causing education institutions and VET schools to close operations and health care workers to leaving their profession. The need for improving the digital education ecosystem and the digital skills of the healthcare professionals is significantly acknowledged by the EU – proven with various initiatives.
According to Deloitte (The future of health in 2040) the digital transformation of healthcare respectively training and
development is a key enabler for accessible high-quality work environment needed to attract new workforce. Digital VET ecosystem will provide the opportunity to qualify healthcare professionals from other countries – even outside EU27, which is needed to solve the scarcity healthcare workforce in EU.
The Extended Reality (XR) technologies will play an essential function in enabling high value to vocational education and Training (VET). The immersive setting will transform learning and teaching through the utilization of XR in VET and leading to the transition in the way we teach and learn. The application of XR education platform will contribute to speed up the qualification of healthcare workforce at lower cost and with limited trainer resources.

Next Gen Healthcare in XR
XR Hospital provides several innovative attributes proven by conducting novel tools and application using immersive technology based on XR. Thus, developing use-case based enabling tailor-made training modules with upskilling ambitions of medical professionals and learners. The integration of an education curriculum in the XR environment and combined with real case simulations is known to be well received by learners in different fields. The application of XR Training and Education has yet not been exploited in the healthcare sector. Considering the needs and challenges of qualifying healthcare professionals across the world, providing respective training and digital upskilling is unique in the healthcare.
Participants of the XR Hospital will be provided with a novel approach of collaboration. The XR Collaboration Platform provides the baseline for teachers, learners and key stakeholders to collaborate, exchange experience and even develop further pedagogical approaches in the immersive world.
The development of a XR curriculum and end-to-end learning journey will first define the next generation training
methodology in the healthcare field. This will include the concrete description of challenges, needs and competency gap of teachers and learners in healthcare.

INFORMATION

"Extended reality (XR) is the umbrella term for all immersive technologies that merge virtual and physical experiences. XR has the potential to be integrated into all stages of healthcare, including education, telemedicine, procedure planning, intraprocedural visualization, post-procedure care, and for rehabilitation. XR can be applied to all participants in medical environment, from patients to trainees to clinicians."
Source: Oxford University Press

EXPLORE
XR HOSPITAL SOLUTIONS

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Onboarding, Talent Development & HR Collaboration

XR Conference Auditorium

Lecture & Conferences in immersive world

XR Tumor Board

Share real time information on cases to collaborate with experts

XR Patient Care

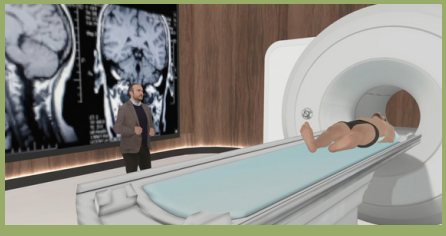
Enables problem-based and interactive training

XR Medical Imaging

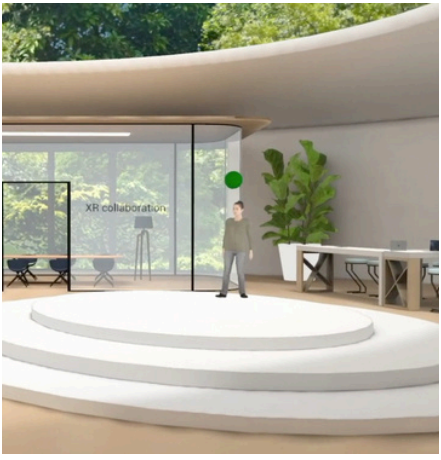
XR platform for surgical planning & training with digital twins

XR Cardiology Space

Complement the ever-improving cardiovascular imaging technologies



XR - HR SPACE



XR Hospital - HR Space

HR Space provides a platform for all HR related events such as talent development, attract & recruit as well as internal HR collaborations in the XR environment. This increases the range to reach young talents globally and send an innovation impulse to GENZ candidates.

This state-of-the-art platform provides the possibilities to avoid regional dependency leading to reduced travel activities as well as a new spirit to collaborate with internal staff from everywhere and anytime. HR Space will set the standard for pioneers globally.

XR CONFERENCE AUDITORIUM

Lecture & Conferences in XR World

The digital transition of the education ecosystem and the healthcare training offers to improve the efficiency, accessibility, equity and quality. The Extended Reality (XR) technologies will play an essential function in enabling high value to vocational education and Training (VET). The immersive setting will transform learning and teaching through the utilization of XR in VET and leading to the transition in the way we teach and learn. The application of XR education platform will contribute to speed up the qualification of healthcare workforce at lower cost and with limited trainer resources.

Novel Approach of Collaboration

The XR Collaboration Platform provides the baseline for teachers, learners and key stakeholders to collaborate, exchange experience and event develop further pedagogical approaches in the immersive world. The collaboration space has a separate audio zone which enables participants to work on mutual topics while lectures and discussion continue in the auditorium.

XR TUMOR BOARD

XR Tumor Board
When it comes to cancer care, looking at a patient's case from different perspectives is an essential part of deciding the best treatment approach. That's why tumor boards are so crucial. These meetings provide a huge benefit to patients, though it's a process patients don't usually know much about. The XR Tumor Board provides an innovative platform to share real time information and images on cases to work with experts from all over the world on the best care plan. This platform is both a state-of-the-art solution to work on real cases as well training and development of medical staff.

Hybrid Collaboration
Embedding experiences globally is increasing the chance to develop the best possible treatment based on successful experiences. This is why collaboration in the XR Platform wins importance. The XR Tumor Board enables hybrid formats and the integration of available communication tools. With this experts from all over the world as well as students and medical staff can be involved in the exchange of experiences and best practices solutions.

XR PATIENT CARE

XR Patient & Elderly Care

The implications of the COVID-19 pandemic revealed pre-existing challenges also in Europe related to the degree of digitalization in education and the shortage of healthcare workforce.

First responders and nurses are the backbone of the healthcare profession, providing support at multiple levels and helping hospitals and healthcare organizations achieve their goals.

The XR Education Platform enables problem-based and interactive training which ensures a personalisation of the learning experience and accessible due to the lower prices of technology.

XR Patient Care solution provides effective and efficient training and practice opportunities.

Be a step toward overcoming the shortage of staff, and will also help in closing skill gaps.

AI Supported Independence in Learning

Learners are empowered to train anytime and anywhere, without the guidance or moderation: Independent XR learning is a key benefit.

Learners will participate in an immersive environment and develop critical thinking skills, analyze complex situations, and make informed decisions. The AI Patient Assessment Solution, that is powered by LLM, ML and deep data analytics, all learners engage in realistic conversation scenarios, merging the gap between virtual training and real-world situations.

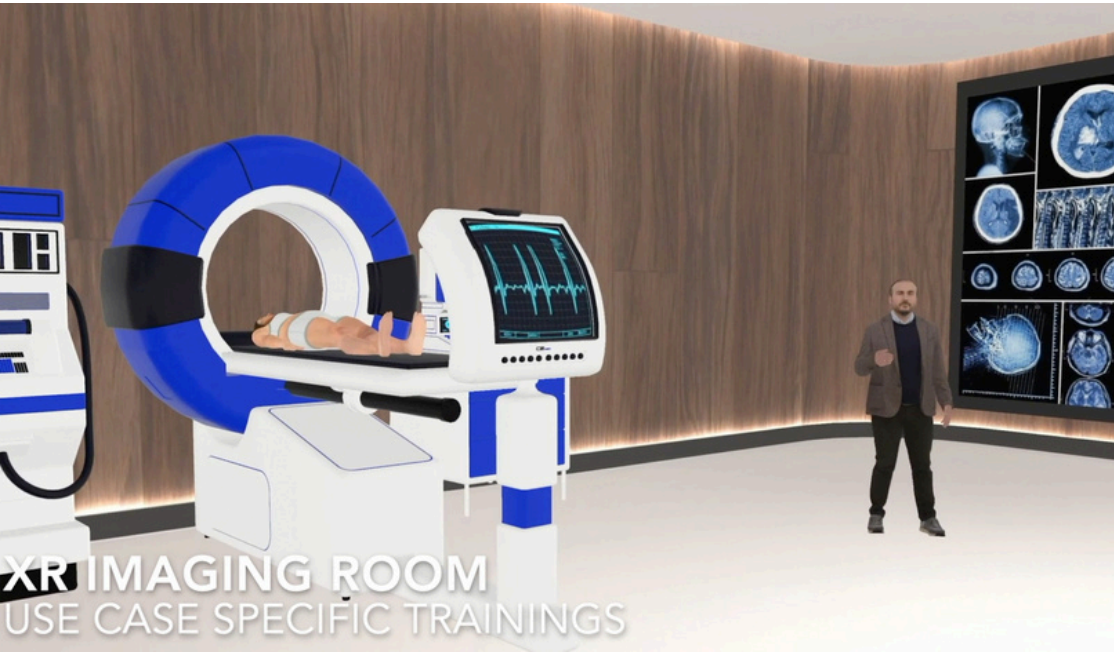
Questionnaire for XR Learner

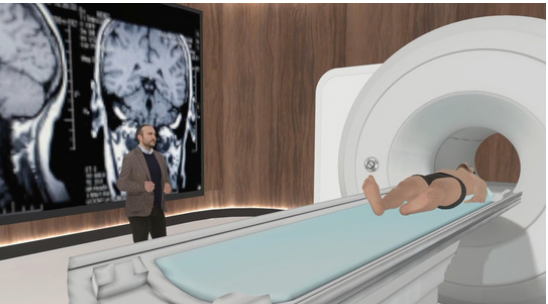
XR IMAGING ROOM

Medical Imaging XR
The XR Imaging Room is an innovative platform for surgical planning and training with digital twins in the virtual and immersive reality. This allows medical professionals to import patient data and visualize, edit, and discuss it in collaborative XR space.
With this ground breaking innovation, pathologies can be better visualized, understood, and assessed easier and more accurate than on standard on-screen alternatives. The XR Imaging changes how medical professionals are working on patient data.

XR Collaboration for Efficiency Increase
Furthermore, the XR Platform enhances the surgical planning and cross collaboration with increased digital medical skills. These enhancements will increase efficiency and optimize cost structures in the patient data assessment and training of medical professionals.

The application of the state-of-the-art medical imaging practices allows you to share surgical procedures and medical cases with experts to either share best practices or integrate experiences from all over the world.

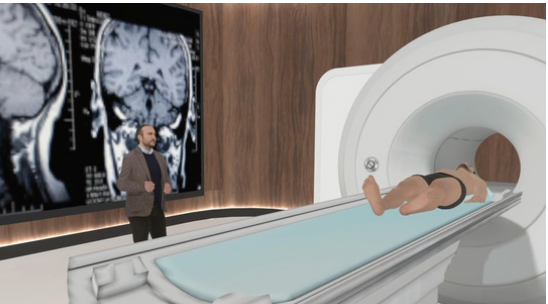




XR CARDIOLOGY SPACE

Risk Minimized Immersive Approach
Cardiovascular diseases are frequently complex and challenging to comprehend for patients without background knowledge. XR can provide patients with an intuitive view of their condition while the physicians fill in the clinical details. In a meta-analysis by van der Kruk et al., multiple studies have shown that using VR in patient education can improve satisfaction, understanding, knowledge, and a sense of engagement or empowerment. More importantly, XR can help relieve the anxiety and terror innate to many cardiovascular interventions.

Accuracy in Interpretation
Specifically, XR can make 3D images easier to interpret through intuitive 3D visualization, more manipulatable through voice/gesture commands, and more accessible through the mobility of XR headsets. The goal of XR is to complement the ever-improving cardiovascular imaging technologies by enabling surgeons and interventional cardiologists to comfortably examine the anatomy and plan the procedure by themselves, freeing their gaze from the screen to the patient and heart team. produce.



PARTNER WITH US

Create optimized learning experiences with effective VR pipeline

TRANSFORM YOUR IDEAS INTO REALITY

We are excited to extend our partnership landscape and develop a use case based XR platform that reflects the needs and ideas of your organization.

XR Tech A. Ş.

FUTURE SOLUTIONS

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