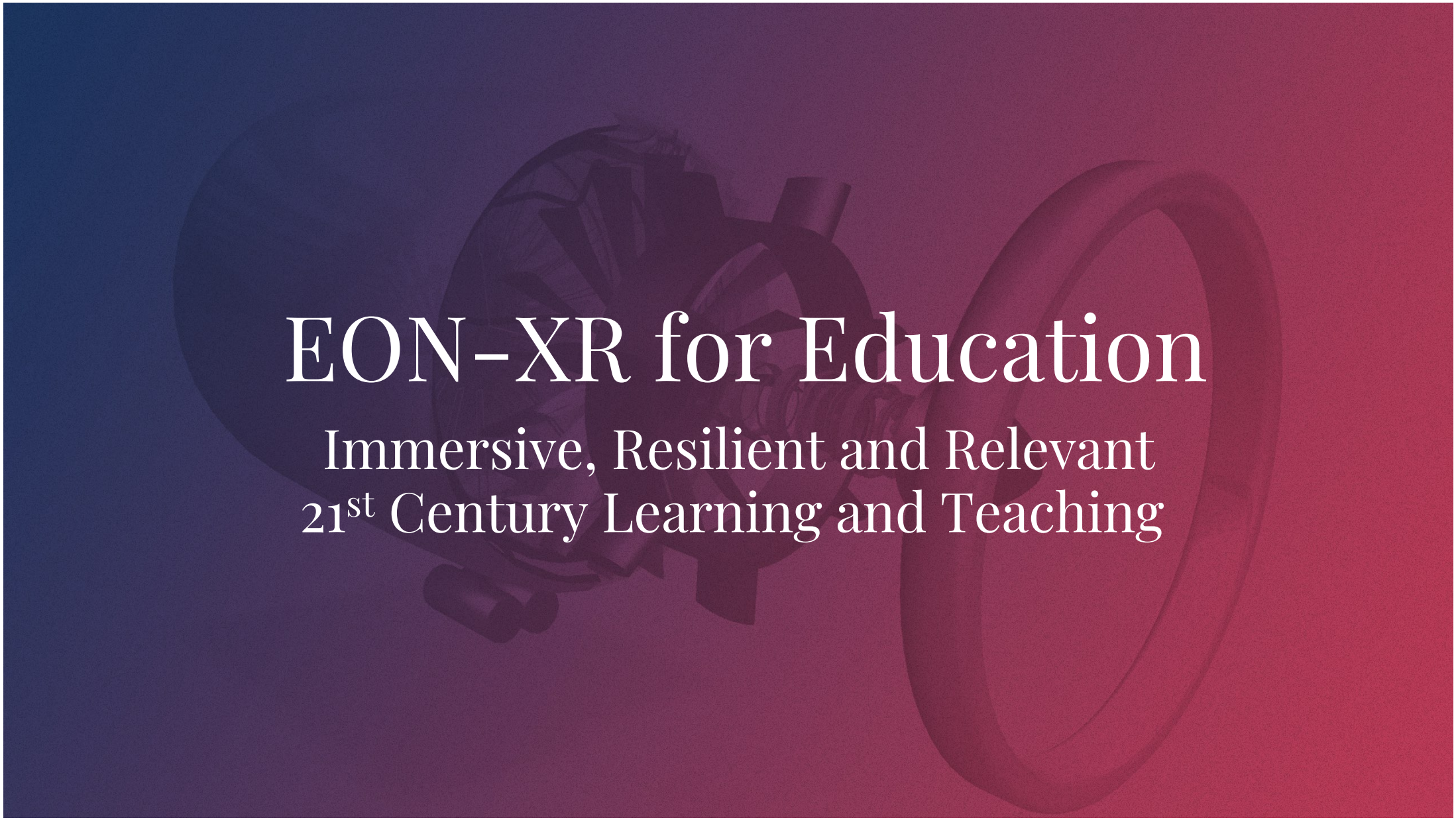
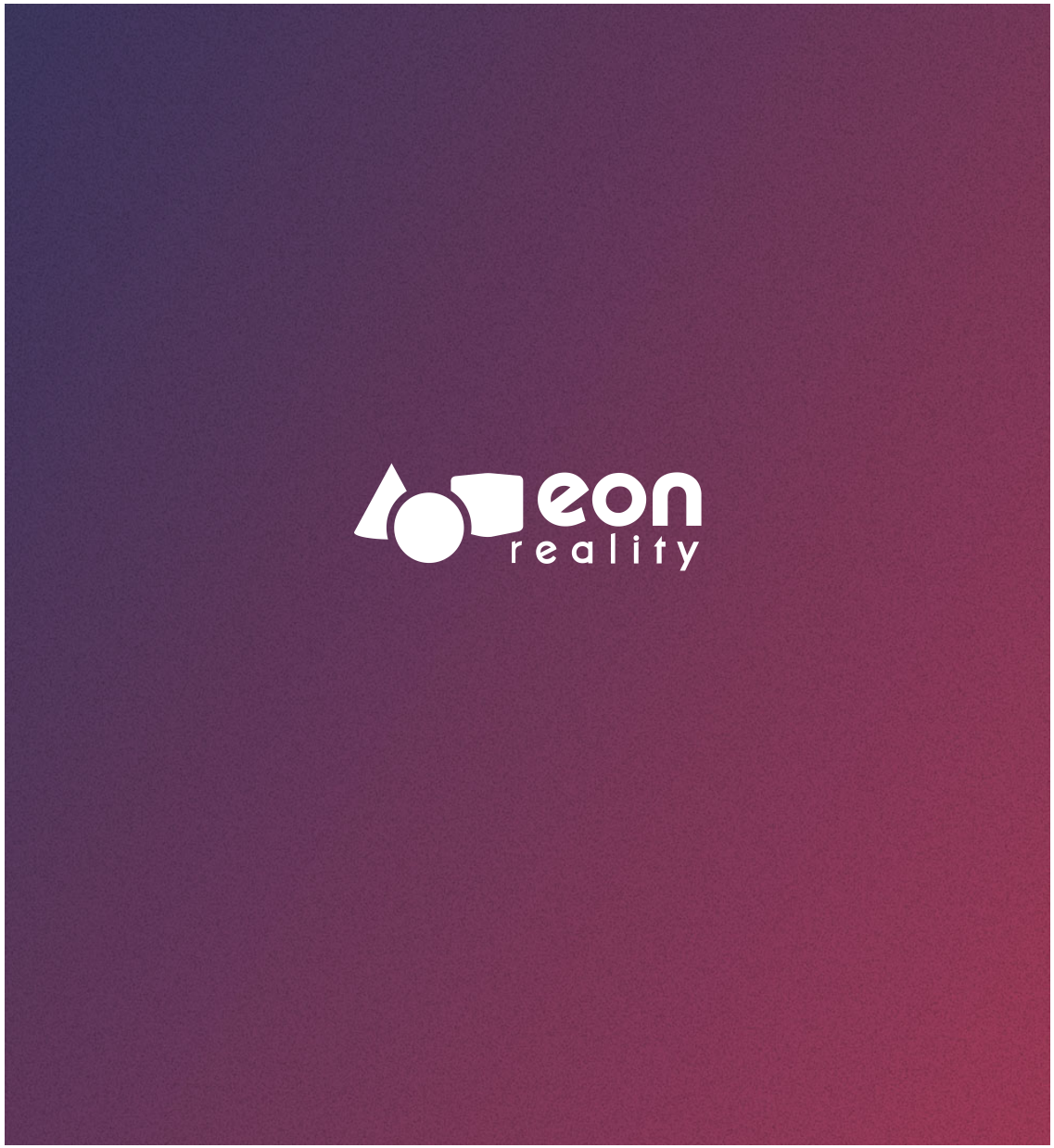
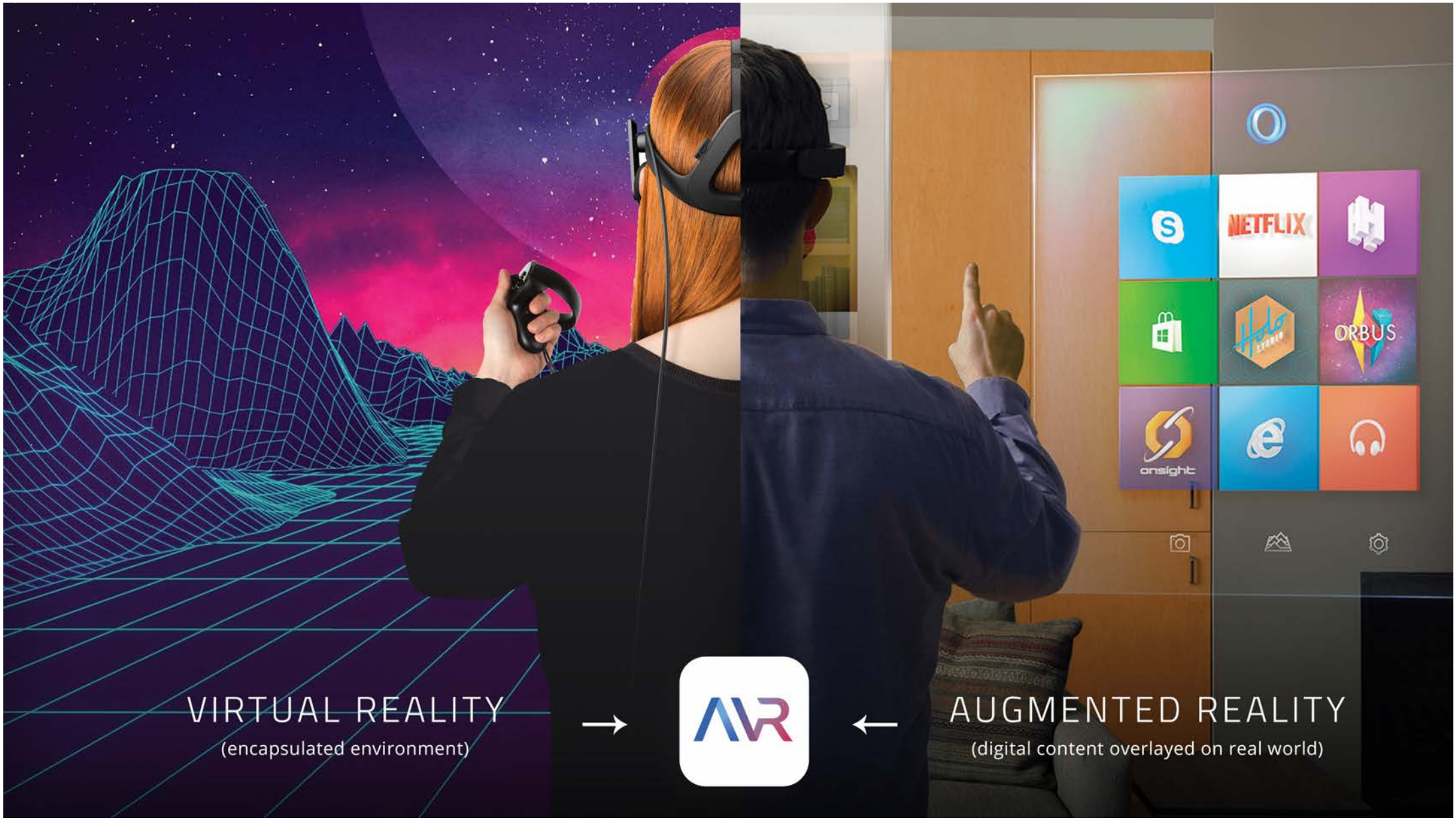
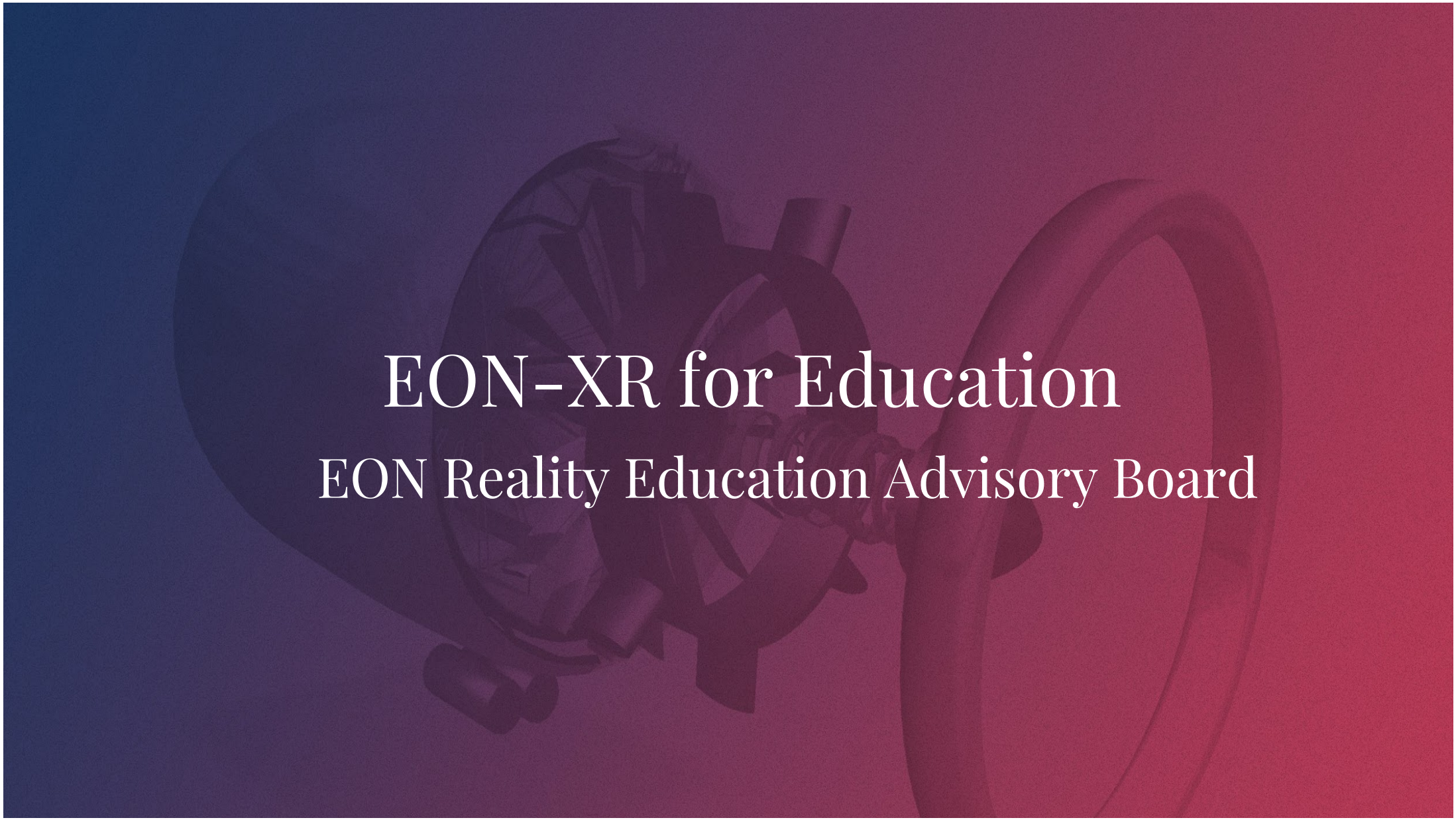

EON-XR for Education
Immersive, Resilient and Relevant
21st Century Learning and Teaching

Company Highlights

- **Market-leading Position:** world leader in Augmented Virtual Reality (AVR) based knowledge transfer
- **Proven Staged Strategy:**
- **Eon Human 2.0** government solution that can uplift millions of smart student & smart workers
- **Classroom 3.0** that enables academic institutions to help students Learn faster, remember longer and make better decisions and
- **Industry 4.0** that enable enterprises to upskill their workers
- **Mission-driven Organization**: EON Human 2.0 is bridging the gap between man and machine
- **Track Record With Blue-chip Customers:** including Exxon, GSK, Honeywell, GE, Mercedes, China Merchant Group, NTU, J&J, Shell and Pearson.
- **Massive, Disruptive And Growing Market**: AVR $100B by 2020.
- **Enterprise-class AVR SaaS Platform:** Securely creates, stores, analyzes, distributes and publishes AVR agnostically fueled by AI, IoT and GIS
- **Industry-leading Management Team:** proven experience in Enterprise solutions, Education and ICT.
- **Scalable SaaS Based Platform**: compound annual growth rate of the order values is expected to grow with over 50% annually over the next 3 years




VIRTUAL REALITY
(encapsulated environment)
AVR
AUGMENTED REALITY
(digital content overlayed on real world)
NETFLIX
ORBUS
onsight


EON-XR for Education
EON Reality Education Advisory Board

Education Leadership

EON Reality's solutions for Education and Training is guided by the EON Education Board, focusing on advancing the use of Augmented and Virtual Reality (AVR) education and research.

The Board and Council is chaired by Professor Bertil ANDERSSON:

- former President of Nanyang Technological University (ranked #1 in Asia in 2018)

- former Chairman of the Nobel Prize Committee for Chemistry.

Eon Reality Education Advisory Board Members

Bertil Andersson
Chairman
Former President of NTU

Ihron Rensburg
Vice Chairman
Former President of University of Johannesburg

Jenny Higham
Principal of St George's University of London

Montserrat Gomendio
Former Deputy Director of the Directorate for Education and Skills, OECD

Jose Ignacio Wert
Former Minister of Education, Culture and Sports, Spain

Jan Carlstedt-Duke
Senior Advisor – Medicine, NTU and Emeritus Professor Karolinska

Peter Looker
Former Director Teaching and Learning, NTU

José Escamilla De Los Santos
Education Innovation Director, Tecnológico de Monterrey

Interactive Digital Centre Inauguration
Italy, Bologna

November 14, 2018


Nanyang Technological University– EON Reality
Future of Education Summit 2019


HUMAN 2.0
GOVERNMENT
CLASSROOM 3.0
ACADEMIC
INDUSTRY 4.0
ENTERPRISE
eon reality
AR
VR

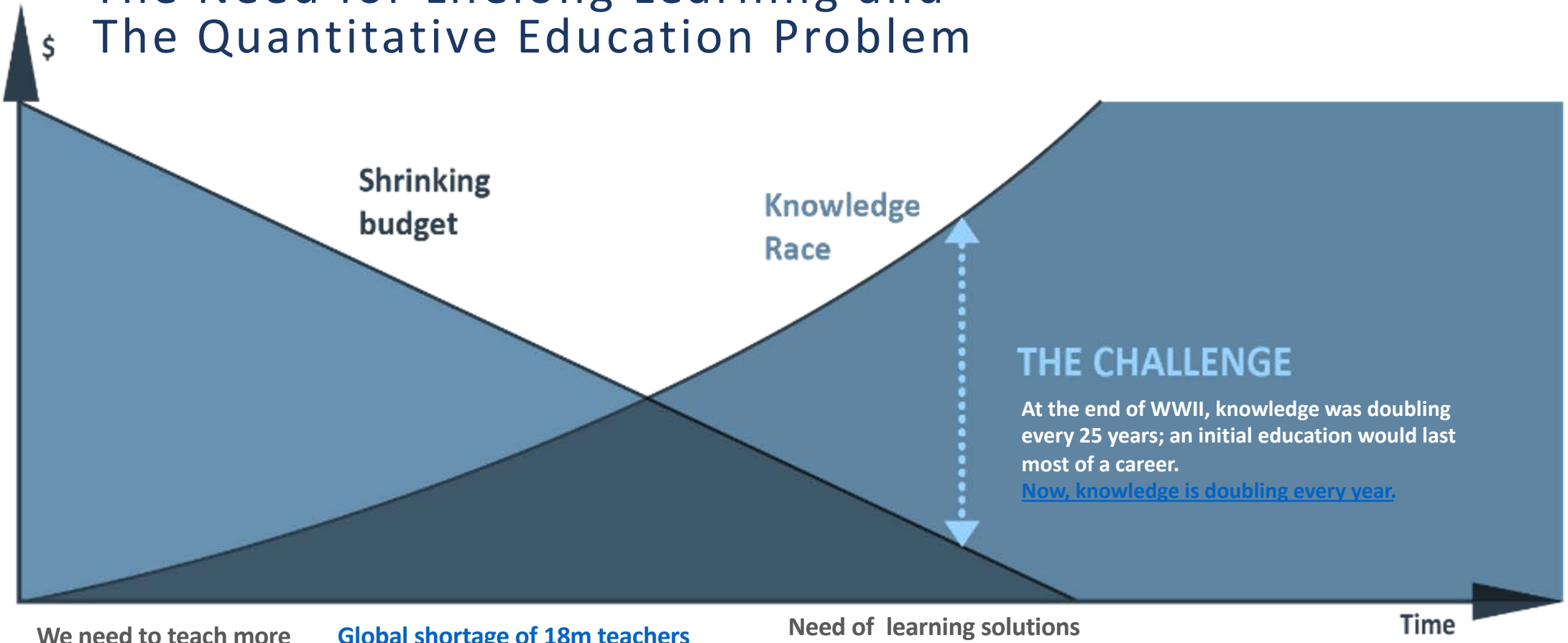
EDUCATION CHALLENGES

- Education necessary for societal and economic development
- Education also a human right
- What does it mean to be educated in the 21st century?
- Education a base for meeting challenges of society
- Keep education available and affordable
- Keep up the quality and relevance for education

MORE EDUCATION CHALLENGES

- How to provide education for underprivileged groups?
- What about Africa?
- What skills are needed tomorrow?

The Need for Lifelong Learning and The Quantitative Education Problem



We need to teach more with less
Less time and less money!

[Global shortage of 18m teachers]

India needs another 1,2m teachers

America needs 2,3m teachers

Sub-Saharan Africa needs a miracle

Need of learning solutions

We have to invent new learning solutions that address the increasing gap between the accelerating knowledge raise and the shrinking education budgets or we are as good as writing off this generation. In short we need to teach more with less; less time and less money to address the growing educational gap..


The Biggest Challenge:
The Pandemic showed that Universities were not prepared for tomorrow.

BBC Sign in News Sport Reel Worklife Travel Future Mo

NEWS

Home US Election Coronavirus Video World UK Business Tech Science Sto

Wales Wales Politics Wales Business North West North East Mid South West Sc

Coronavirus: Universities' 'perfect storm' threatens future

By Tomos Lewis
BBC News

7 August 2020 Share

Coronavirus pandemic

BBC Sign in News Sport Reel Worklife Travel Future M

NEWS

Home US Election Coronavirus Video World UK Business Tech Science Sto

Coronavirus: Lost school time 'will hurt economy for 65 years' - study

By Sean Coughlan
BBC News family and education correspondent

24 July 2020 Share

Coronavirus pandemic

USA TODAY

Coronavirus 'confusion': Teachers had little training for how to do online classes

Caralee Adams | The Hechinger Report
Published 5:26 AM EDT Apr 17, 2020

This story about remote learning was produced by The Hechinger Report, a nonprofit, independent news organization focused on inequality and innovation in education. Sign up for the Hechinger newsletter.

After the Arizona State University Preparatory Academy announced on March 13 that it would shift its 11 schools to online learning because of the coronavirus crisis, teacher

THE WALL STREET JOURNAL. SIGN IN SUBSCRIBE

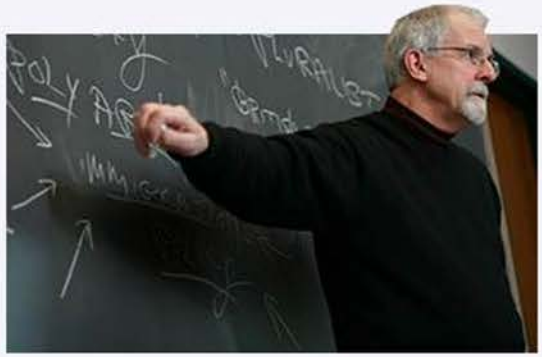
The Results Are In for Remote Learning: It Didn't Work

The pandemic forced schools into a crash course in online education. Problems piled up quickly. 'I find it hectic


Today, the pandemic has forced
classrooms to move online.

The 2020 classroom

BOOKS



BLACKBOARD
INSTRUCTION

LECTURE
MONOLOGUES

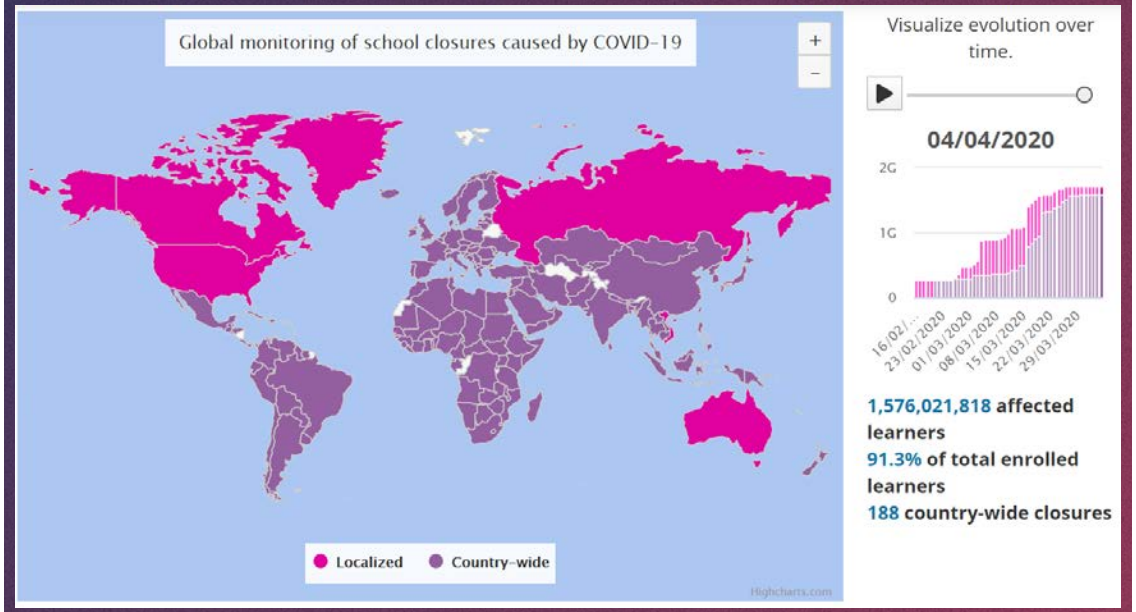
E-BOOKS

YOUTUBE VIDEOS

MOOCS and Zoom

Learning Is Not A Spectator Sport

- **Teachers and trainers** have been forced to convert their **courses online.**
- Studies show that **people stop paying attention** to conference calls, recorded lectures, and similar videos **after just 6 minutes** when viewed on a screen.
- **Learning is not a spectator sport.** Applying concepts in practice is just as important — if not more so — than learning them theoretically, and that's virtually impossible to do through basic online conferencing



With countless people (including **nearly 1.6 billion children**) affected by the pandemic, much of the **world's education has been disrupted**.

UNIVERSITIES DATE BACK AT LEAST A MILLENIUM...

Nalanda University
400 CE

Al-Karaouine
Morocco
859 CE

Bologna
1088 CE

Oxford
1096 CE

Paris
1150 CE

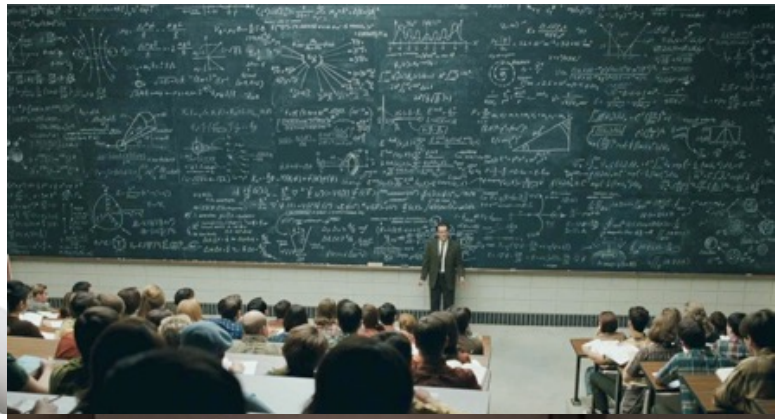
Cambridge
1209 CE

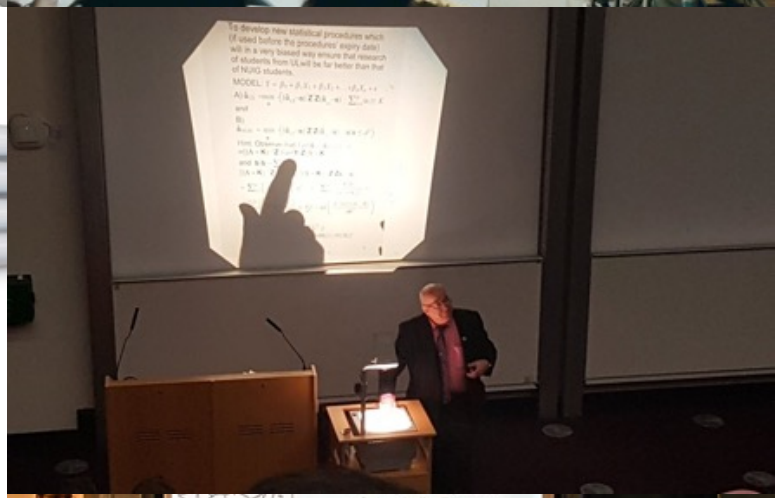
Nanyang Technological University

AND SO ARE THE TEACHING METHODS.....

The traditional classroom method is still the norm

Students continue to be passive consumers of lectures with content presented in a 2D setting online or otherwise

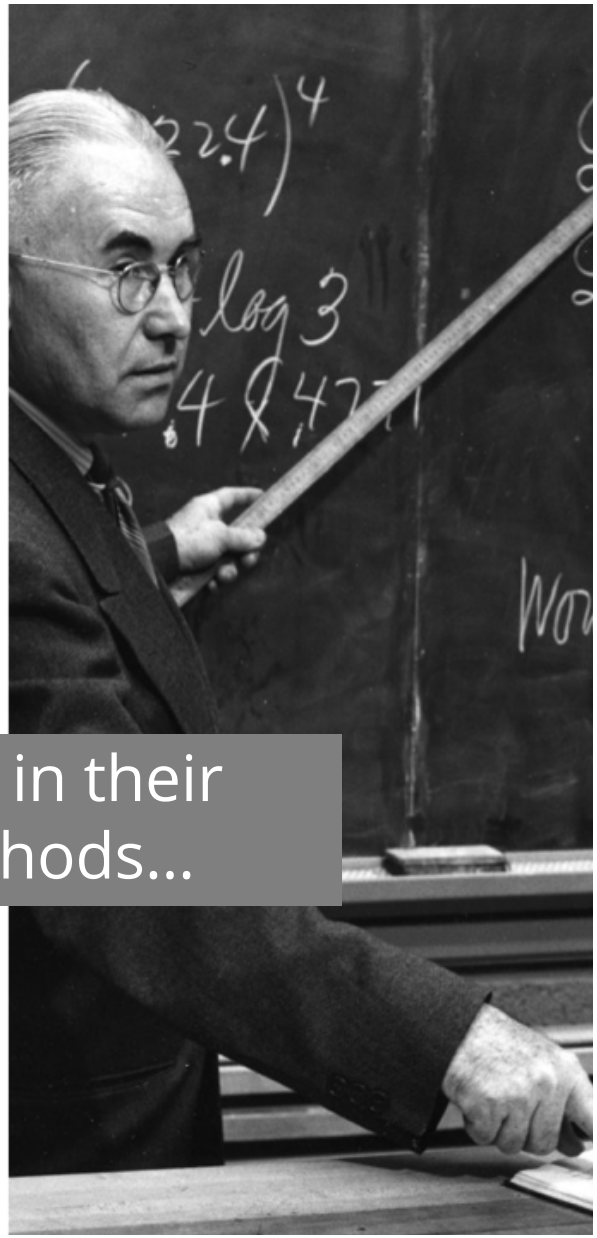




Looking at University Education today

University Professors are creative and innovative in research...

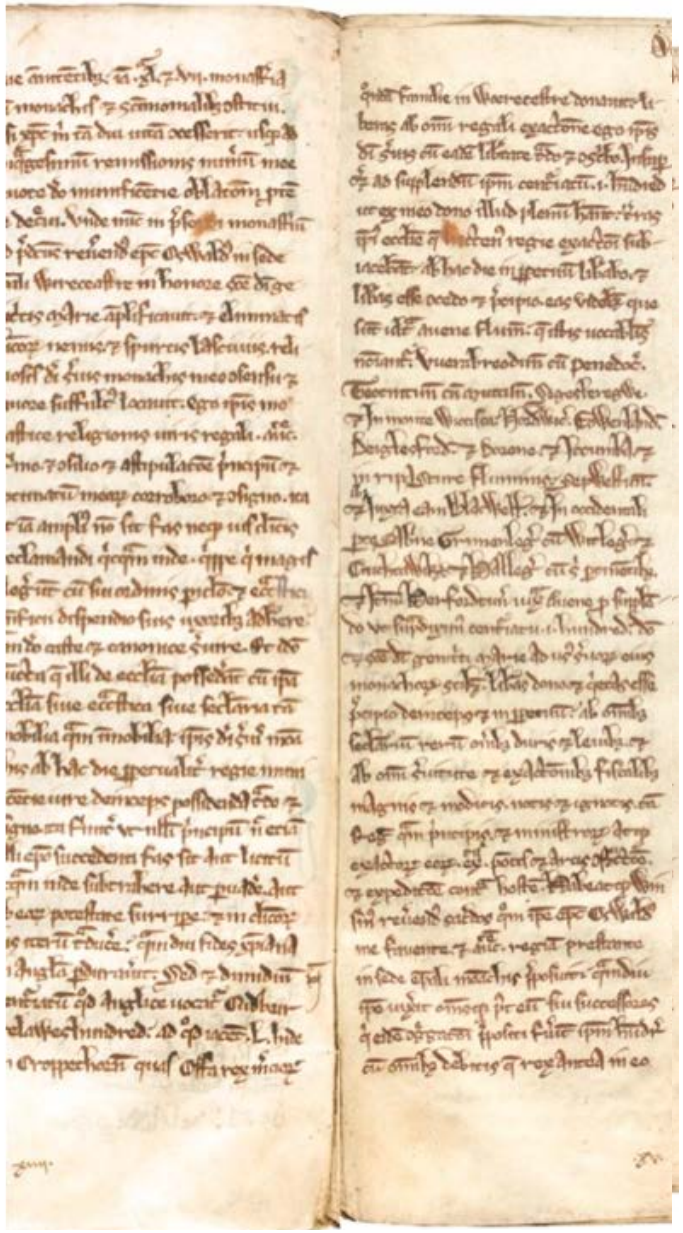
yet traditional in their teaching methods...



When humans invented written symbols, text and later books, it was crucial for communication and documentation of fact...

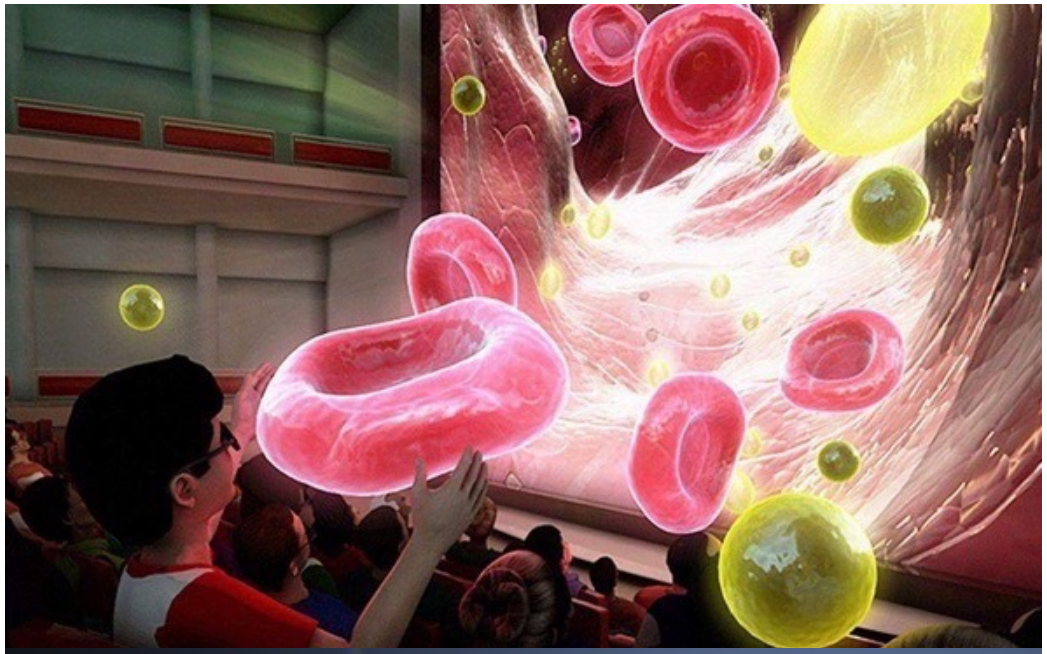
BUT

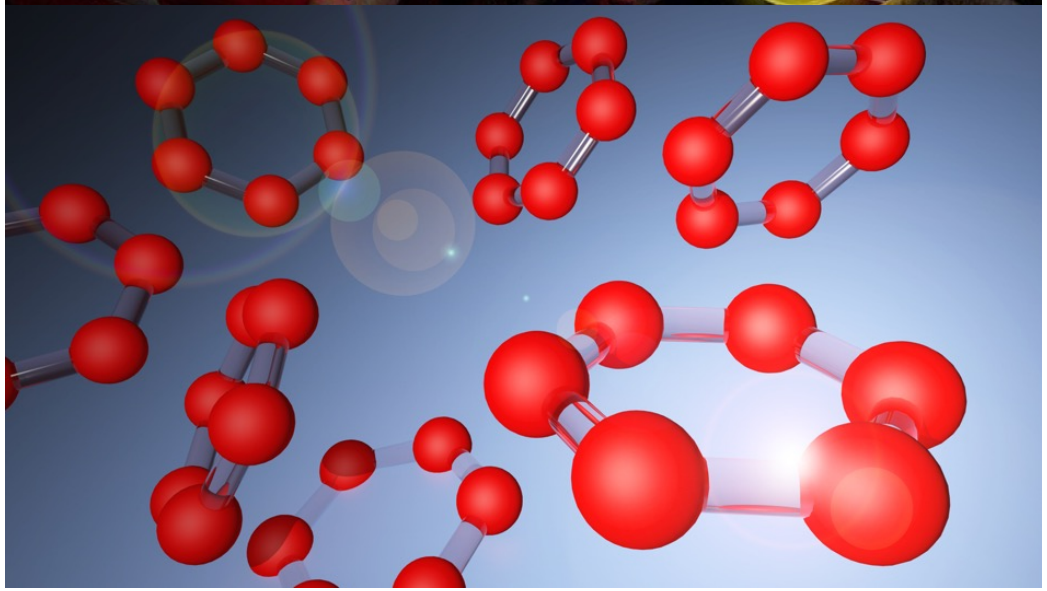
That does not mean it is perfect for education...



The Natural Way Of Learning Is In 3-Dimension

- The real world is in 3-D
- Our eyes and brains gives us a 3-D picture of the world
- Traditional teaching is based largely on text and 2D images
- Abstract thinking required to turn that information to the real world structure/function and 3D images





3D IMAGES MAKES UNDERSTANDING EASIER

- Medicine / Human Body and its organs
- Biomolecular structures
- Chemical molecules and their interactions
- Atomic structures
- Ecological systems and the Environment
- Engineering devices and systems
- Architecture / Design
- Urban systems and dynamics

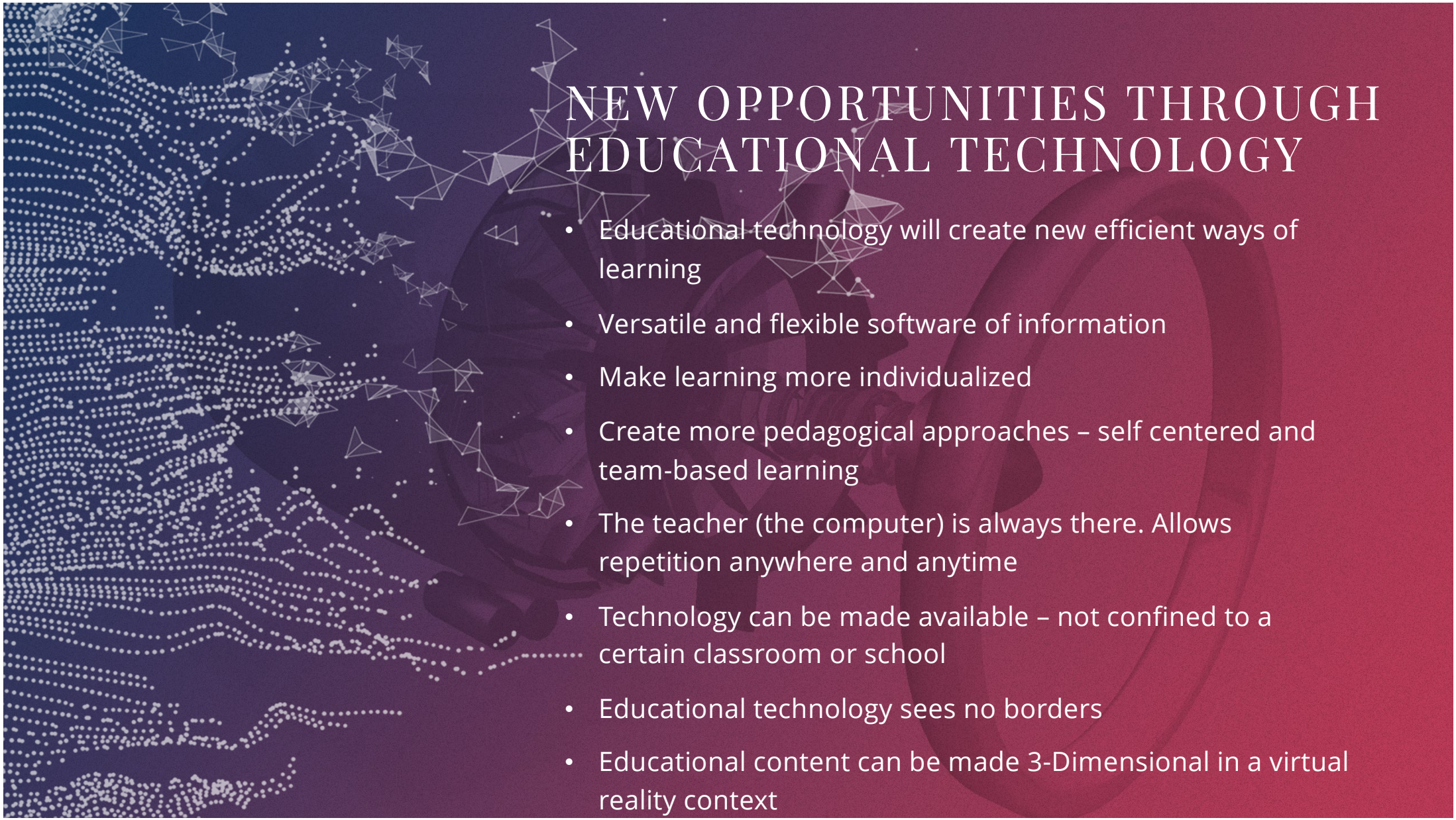
A challenge to understand these areas in 2-Dimension...

The Biggest Challenge:

The Pandemic showed that Universities were not prepared for tomorrow.

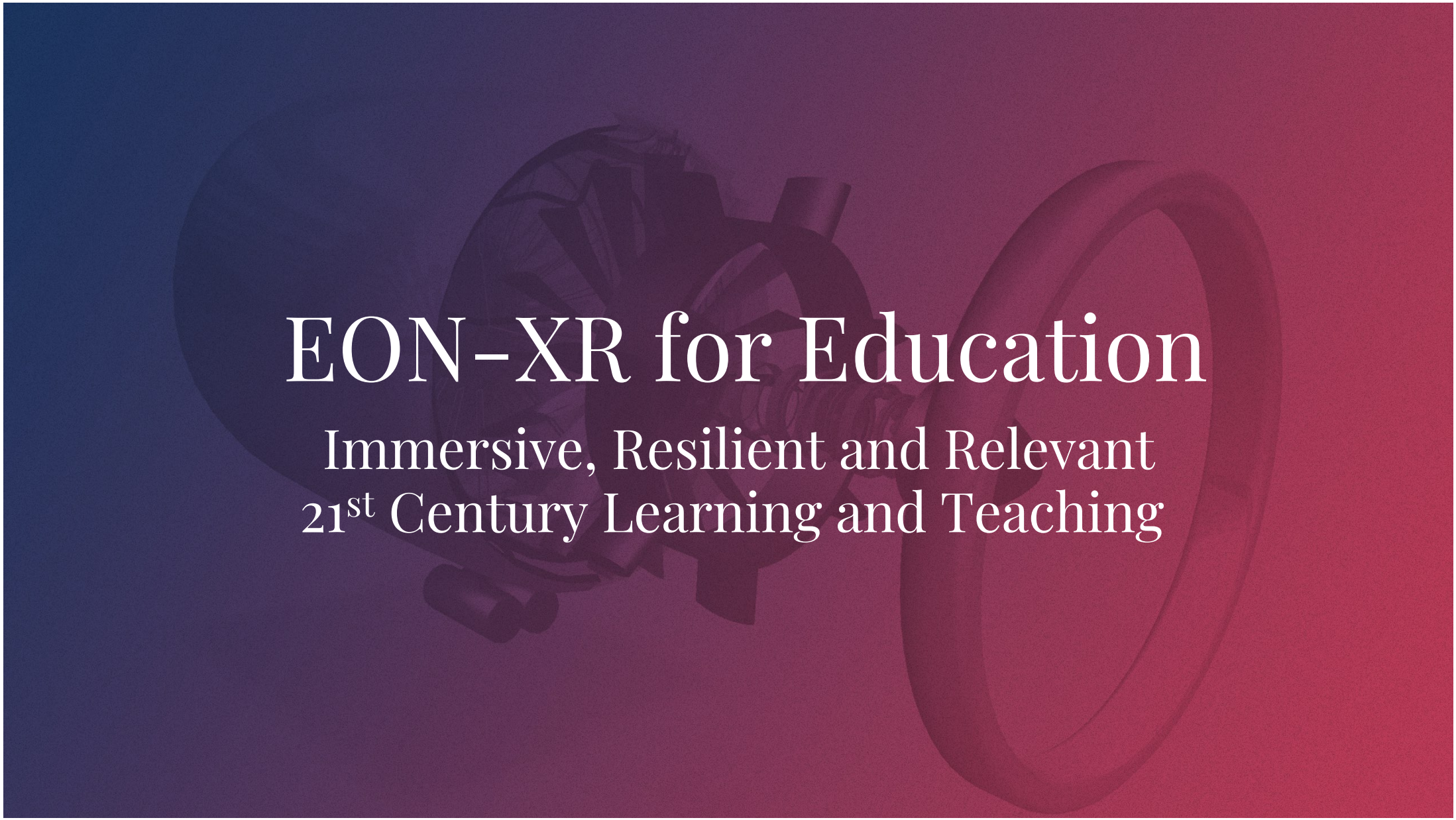
What if tomorrow doesn't end?

Experts from Harvard University's T.H. Chan School of Public Health have warned that **social distancing may continue intermittently well into 2022.**

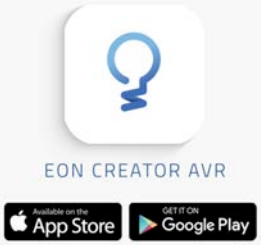


NEW OPPORTUNITIES THROUGH EDUCATIONAL TECHNOLOGY

- Educational technology will create new efficient ways of learning
- Versatile and flexible software of information
- Make learning more individualized
- Create more pedagogical approaches – self centered and team-based learning
- The teacher (the computer) is always there. Allows repetition anywhere and anytime
- Technology can be made available – not confined to a certain classroom or school
- Educational technology sees no borders
- Educational content can be made 3-Dimensional in a virtual reality context


EON-XR for Education
Immersive, Resilient and Relevant
21st Century Learning and Teaching

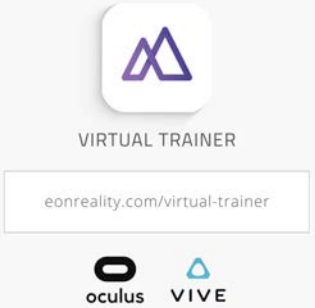
Learn



CREATOR AVR

Onboarding
Familiarization
Pre-training
Sales Training

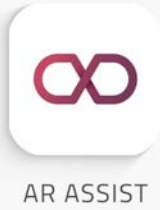
Train



VIRTUAL TRAINER

Procedure Practice
Remote Training
Virtual Certification

Perform



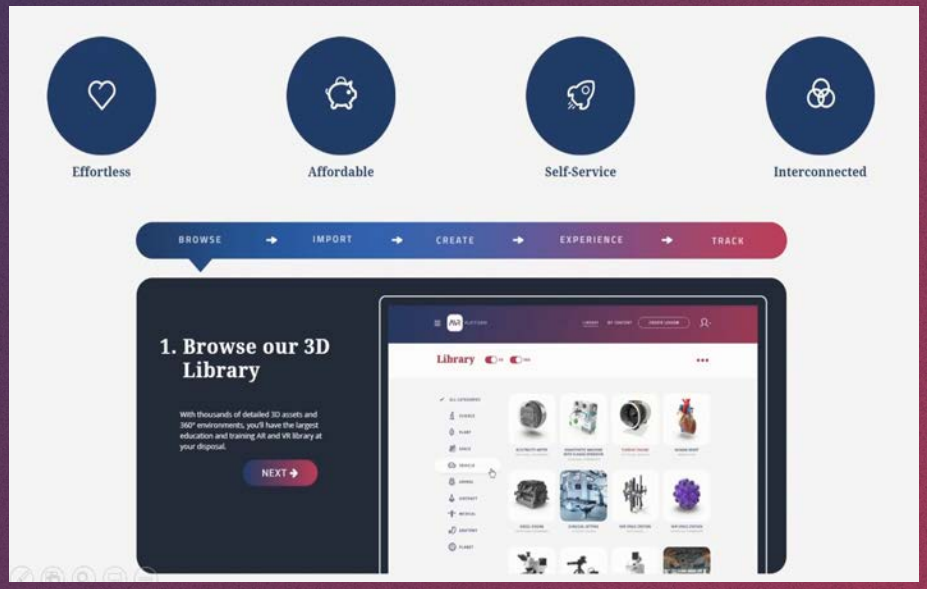
AR ASSIST

AR Assisted MRO
Remote Expert Assistance
Real Time Data Display

End To End Solution For XR Knowledge Transfer

EON XR – Comprehensive AVR Platform to Develop, Run, Manage, Access, Store, Host & Distr. AVR

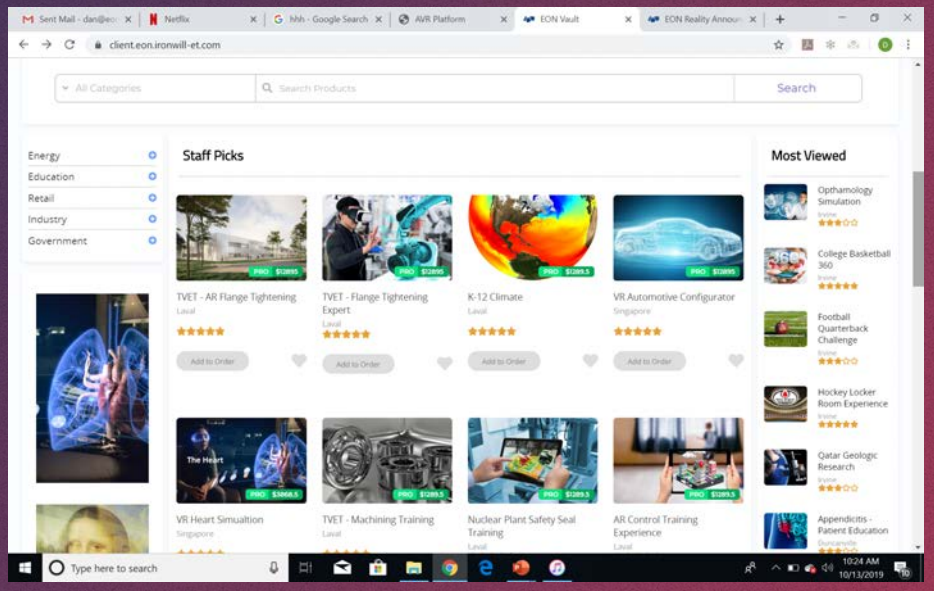
- Effortless
- Affordable
- Self service
- Interconnected VR AR Mobile
- Access to 870,000 3D assets



https://betaaccount.avrplatform.com/Home/IndexV2

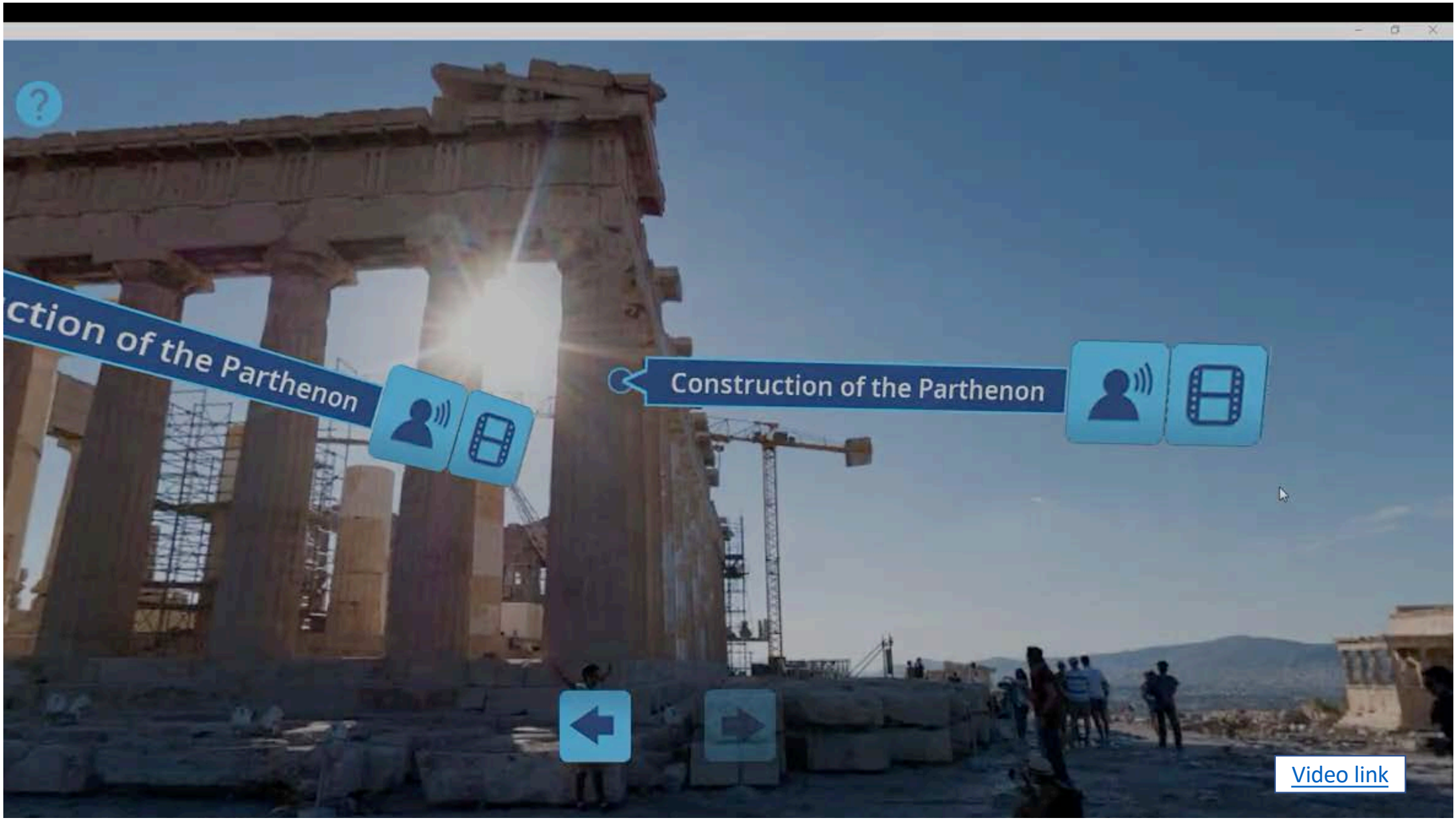
VAULT - Vast Catalog of Augmented and Virtual Reality Applications

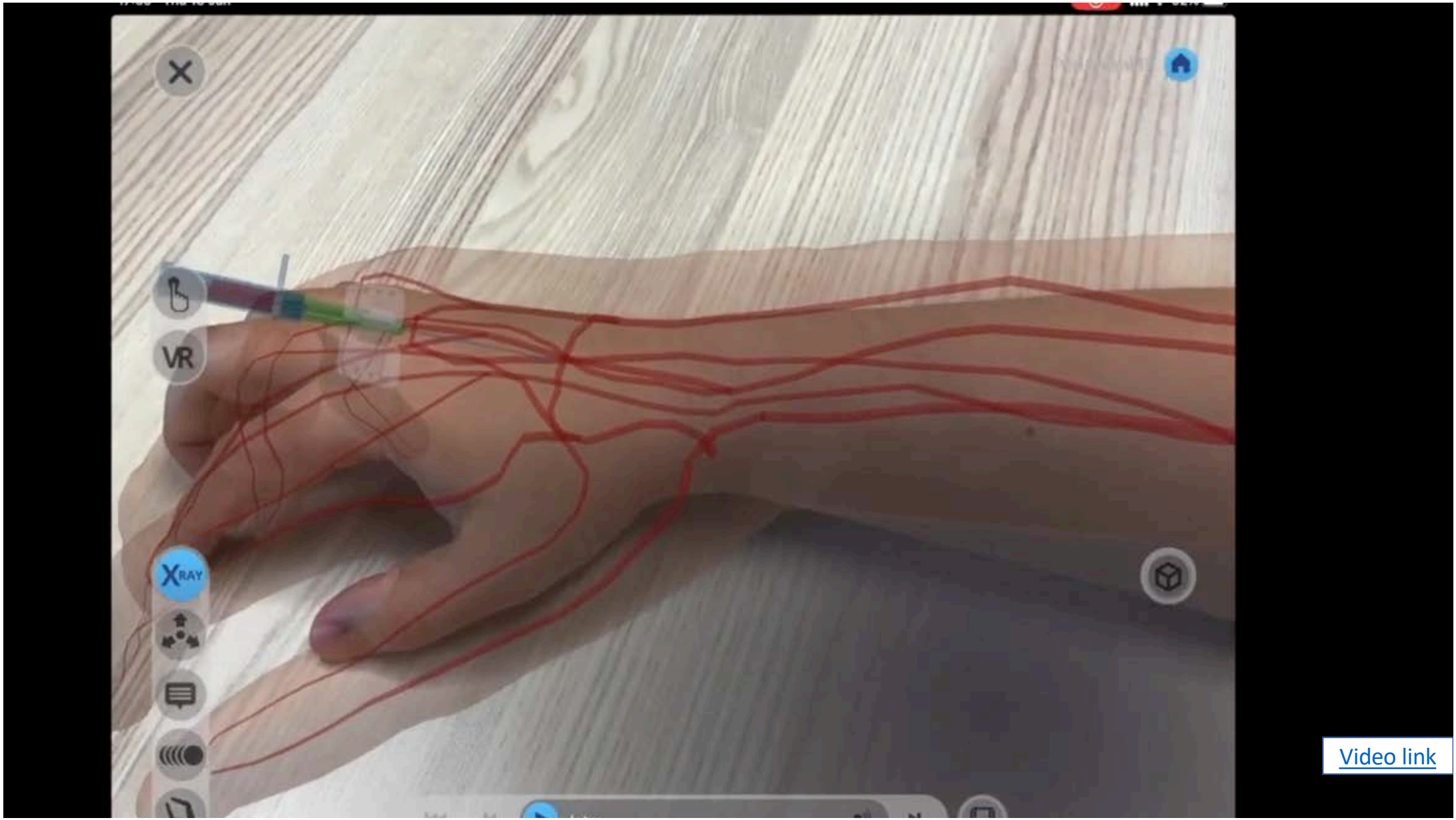
- Advanced Complete Application
- Addresses Specific Needs
- Supports advanced AVR Systems
- Certified by Academic Customers
- Marketplace with Revenue opportunities

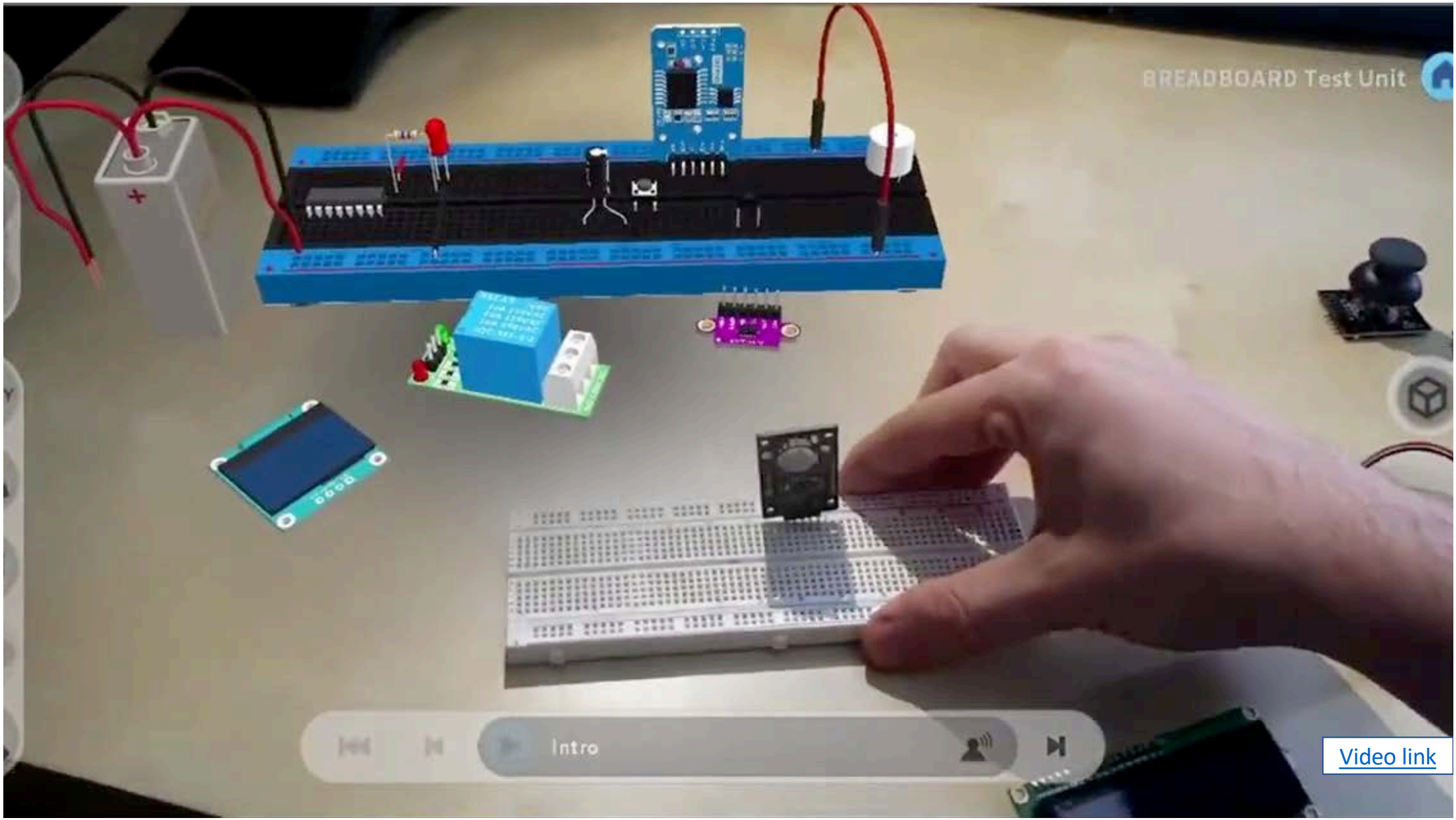


https://www.eonreality.com/press-releases/eon-reality-vault-announcment/


EON-XR for Education
Immersive


ction of the Parthenon
Construction of the Parthenon
Video link

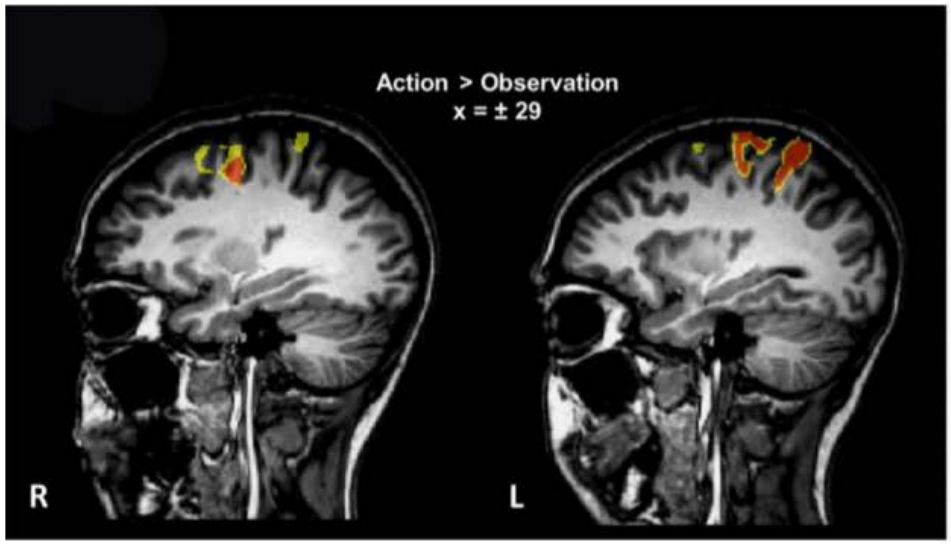

VR
XRAY
Video link


BREADBOARD Test Unit
Intro
Video link


EON-XR for Education
Relevant

THE BEST WAY OF LEARNING ABOUT ANYTHING IS BY DOING

RICHARD BRANSON



Learning by doing helps students perform better in science

Students who physically experience scientific concepts understand them more deeply and score better on science tests, according to a new UChicago-led study.

Brain scans showed that students who took a hands-on approach to learning had activation in sensory and motor-related parts of the brain when they later thought about concepts.

https://news.uchicago.edu/story/learning-doing-helps-students-perform-better-science

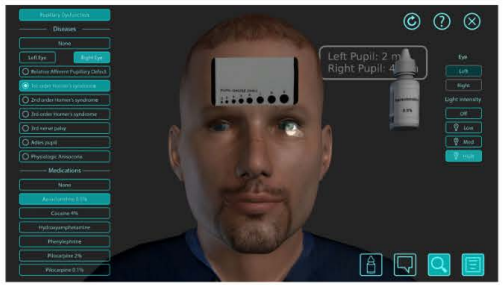
Loyola University – EyeSim ™ - Medical Training in VR

Video from: https://www.youtube.com/watch?v=XD089zElEZ4

Learning pupillary examination using the Advanced Pupil Simulator among medical students and residents

Sachin Kedar[1,2], Jideofor K Ndulue[1], Deepta Ghate[1],
[1]Stanley M. Truhlsen Eye Institute; [2]Department of Neurological Sciences, University of Nebraska Medical Center, Omaha, NE, United States.

Advanced Pupil Simulator ®



- We recently designed a virtual reality-based application, Advanced Pupil Simulator® (APS) in collaboration with EON Reality Inc. and A Nu Reality
- EyeSim APS is a virtual reality application that allows trainees to work in a simulated environment to identify and master pupillary examination
- The APS consists of a monitor (HP Zvr), 3D goggles and a stylus. The stylus replicates the experience of holding a handheld light used in eye exams. The goggles gives a 3-dimensional representation of the image on the monitor and helps the image track the eye movement of the user.
- The APS has an interactive interface that simulates how medications and lighting affects the pupil. Eight pupillary conditions (normal, relative afferent pupillary defect (RAPD), Horner's, 3rd nerve palsy, Adie's pupil and physiologic anisocoria) can be simulated and confirmed using appropriate pharmacologic eye drops.

Methods

- 145 trainees (126 first-year medical students, 15 neurology and 4 ophthalmology residents) participated. All trainees reviewed an online power-point module, received a 15 minute demonstration and practiced pupillary examination in groups of 3 assigned to an expert faculty on the APS for 30 minutes.
- All trainees completed a Likert-type questionnaire (1 = not confident, 5 = very confident) before and after the session to assess confidence in performing pupillary examination.
- All trainees were objectively assessed for knowledge, comprehension, application and analysis using test mode on the APS..
- Statistical methods: Differences in pre-and post-training confidence was tested using

Results

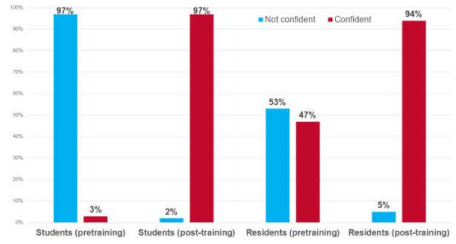


Figure 1. Participants confidence to perform pupillary examination before and after training with the Advanced Pupil simulator.

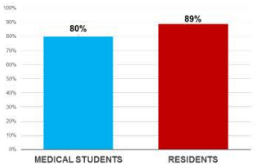


Figure 2. Proportion of participants who correctly demonstrated all steps of pupillary examination after training with the Advanced Pupil Simulator

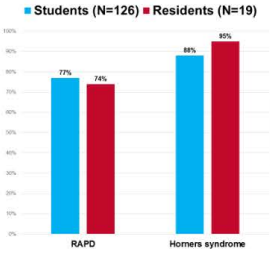


Figure 3. Post training assessment: Correct diagnosis of RAPD and Horner syndrome

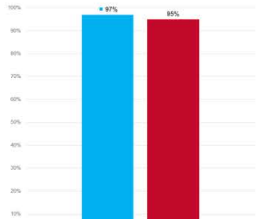


Figure 4. Post training assessment: pharmacological confirmation of Horner's syndrome

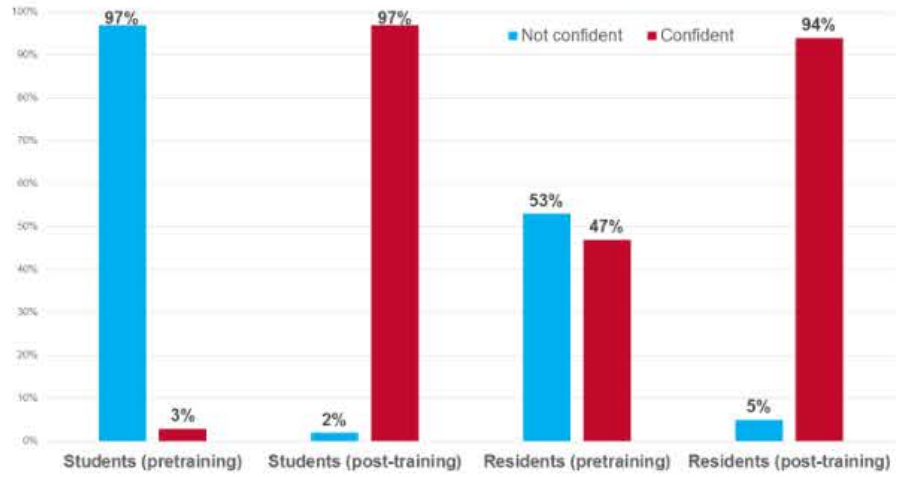
- 97% (122) students and 10 (52%) residents reported improved confidence in performing pupil examination after training with APS.
- 80% (101) students and 89% (17) residents were able to correctly list and demonstrate all steps in pupillary examination.
- 77% (97) students and 74% (14) residents correctly identified RAPD while 88% (111) students and 95% (18) residents correctly identified Horner's syndrome.
- Post training, students reported improved confidence in identification of all pupillary abnormalities (p=0.00), while residents reported improved confidence in diagnosing Adie pupil (p=0.00) and using pharmacologic agent to confirm anisocoria (p=0.00).

Conclusion

- Virtual-reality based practical training can shorten time to competency for critical medical examination techniques
- All trainees showed improved confidence in pupillary examination after using the APS.

Grant support

Results



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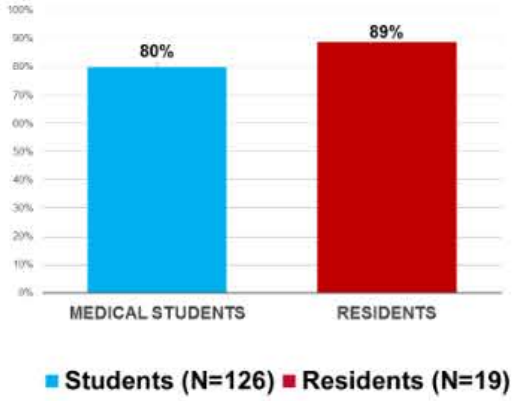
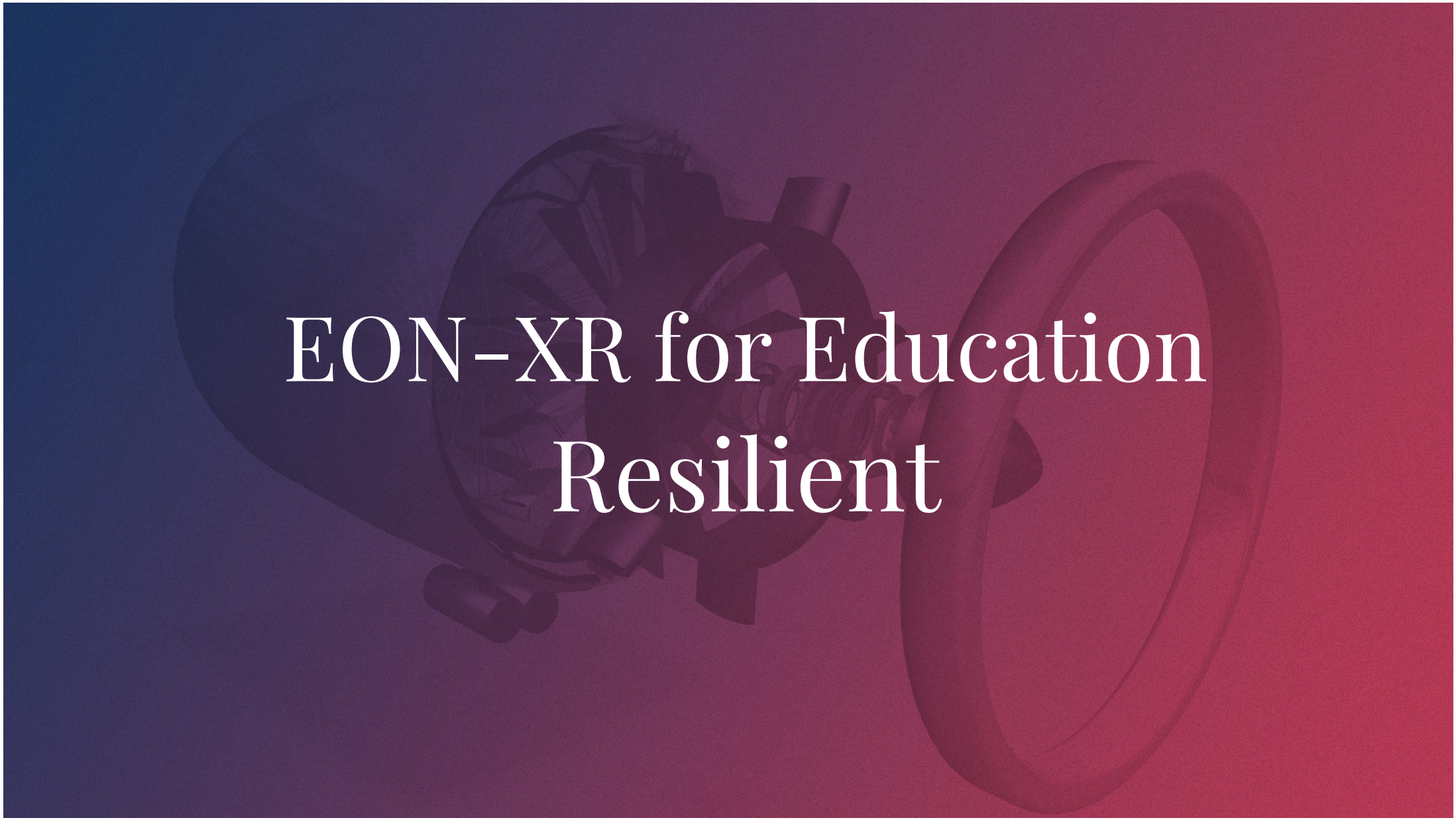


Figure 2. Proportion of participants who correctly demonstrated all steps of pupillary examination after training with the Advanced Pupil Simulator

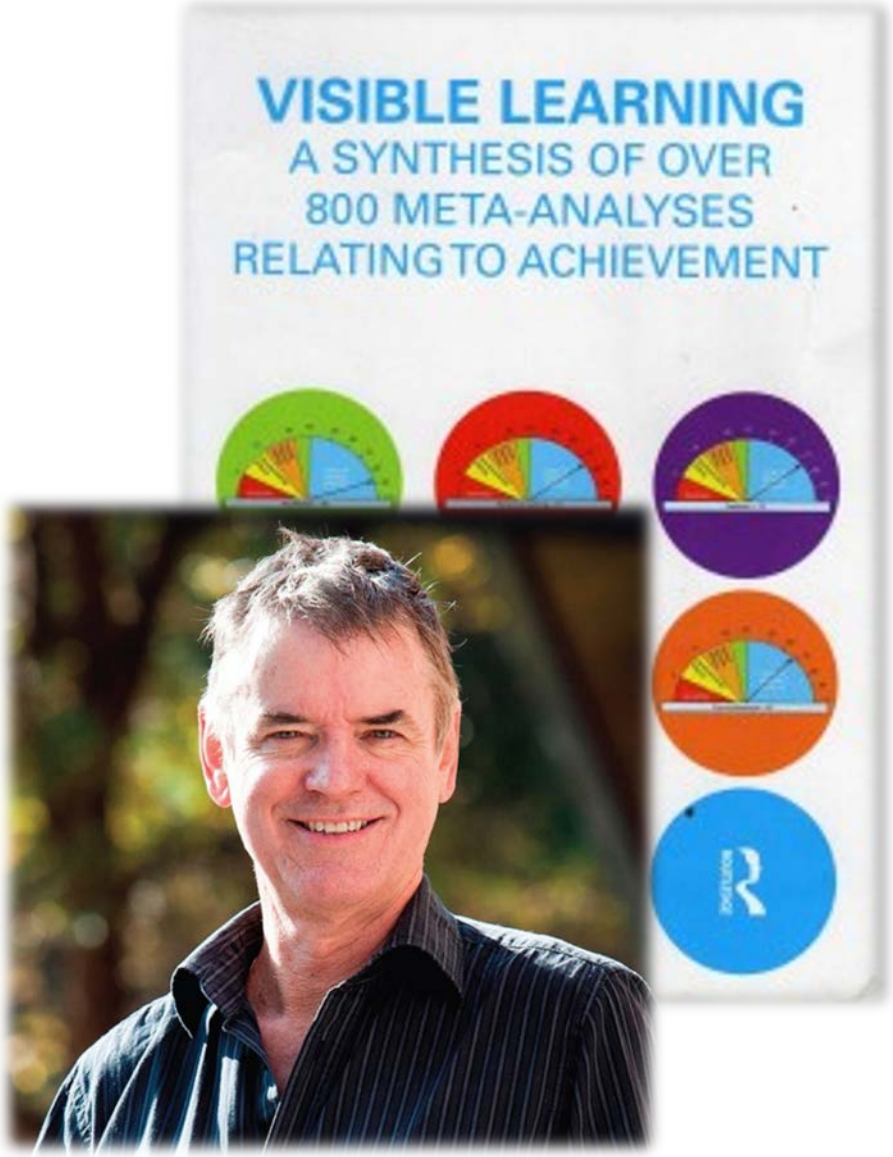

EON-XR for Education
Resilient

Principles of effective learning

"The remarkable feature of the evidence is that **the biggest effects on student learning occur** when teachers become learners of their own teaching, and **when students become their own teachers"**

800+ meta-analyses
50,000+ individual studies
80 million students

John Hattie (2009) *Invisible Learning* Routledge p.22



Self-Directed Learning with the AVR Platform

March 26, 2020

Reproductive vs Productive Learning

Reproductive Learning

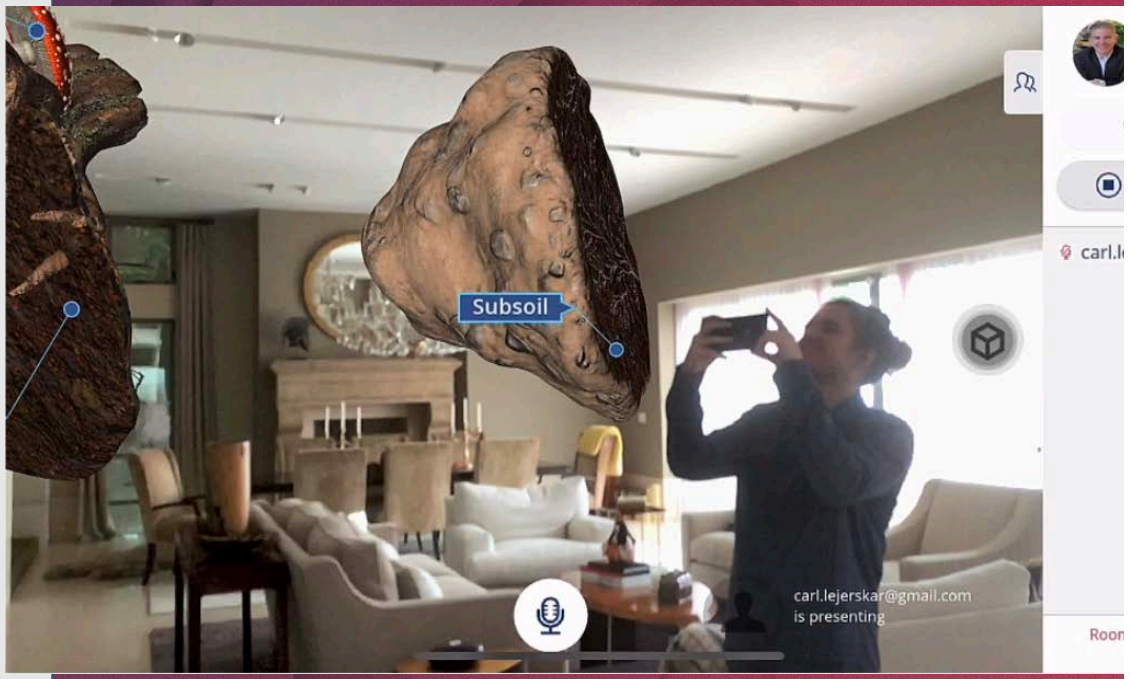
- Rote learning (often facts)
- Memorization
- Reproduction of existing knowledge
- Exams requiring replication of knowledge (often MCQs)

Productive Learning

- Discovery of knowledge through activities
- Constructing knowledge in real-world situations
- Collaboration with peers
- Learning concepts through real contexts

What can the EON XR Platform add to student learning?

When students construct a learning activity on the EON XR Platform, they need to research, make judgments, communicate to their peers, and create coherence in the subject matter



7437 users created
54,425 AVR learning assets

BACHELOR PROGRAMS

- Mechatronics Management
- Architecture
- Construction Engineering
- Media And Communication
- Energy Engineering
- Nursing
- Integrated Design
- Food Science And Biotechnology
- Pharmacy
- Dentistry
- Agricultural And Environmental Engineering
- Digital Art And Media
- Anesthesiology Technician
- Radiology Technician

MASTER PROGRAMS

- Media And Communication
- Construction Engineering
- Mechatronics Management
- Architecture
- Pharmacy
- Dentistry
- Food And Technology Sciences
- Electricity And Power Markets

Lend Sylejmani ,Student of University for Business and Technology Kosovo

“I participated in an AVR Academy that was in collaboration with my University - UBT where I learned a lot about the AVR system, more specifically how to learn from the existing assets in the platform and how to create lessons using our own creation and learning in the process of creation.

I was very pleased with my experience and I want to congratulate you and your team for the amazing work and effort that you put into this platform! As a student, I find it helpful and I believe it has helped me to develop the necessary skills to advance.“

EON Reality's Global Roll-out Where EON-XR is Being Adopted

Other Successful EON Reality Partnerships

UNMC
UNIVERSITY OF NEBRASKA MEDICAL CENTER

Global Center for Advanced Interprofessional Learning

Follow Link to More Info:

http://www.wowt.com/content/news/New-virtual-reality-lab-at-UNMC-489188681.html

mohawk

"Mohawk College is proud to open our new Interactive Digital Centre in an exclusive collaboration with global leader EON Reality.

Our centre in Hamilton Ontario will serve as a provincial hub for innovation, training and applied research solutions in Augmented and Virtual Reality for industry partners."

Ron McKerlie
Mohawk College President

Follow Link To View Video:
https://www.youtube.com/watch?v=kT9yKthL3yE

ORU
ORAL ROBERTS UNIVERSITY

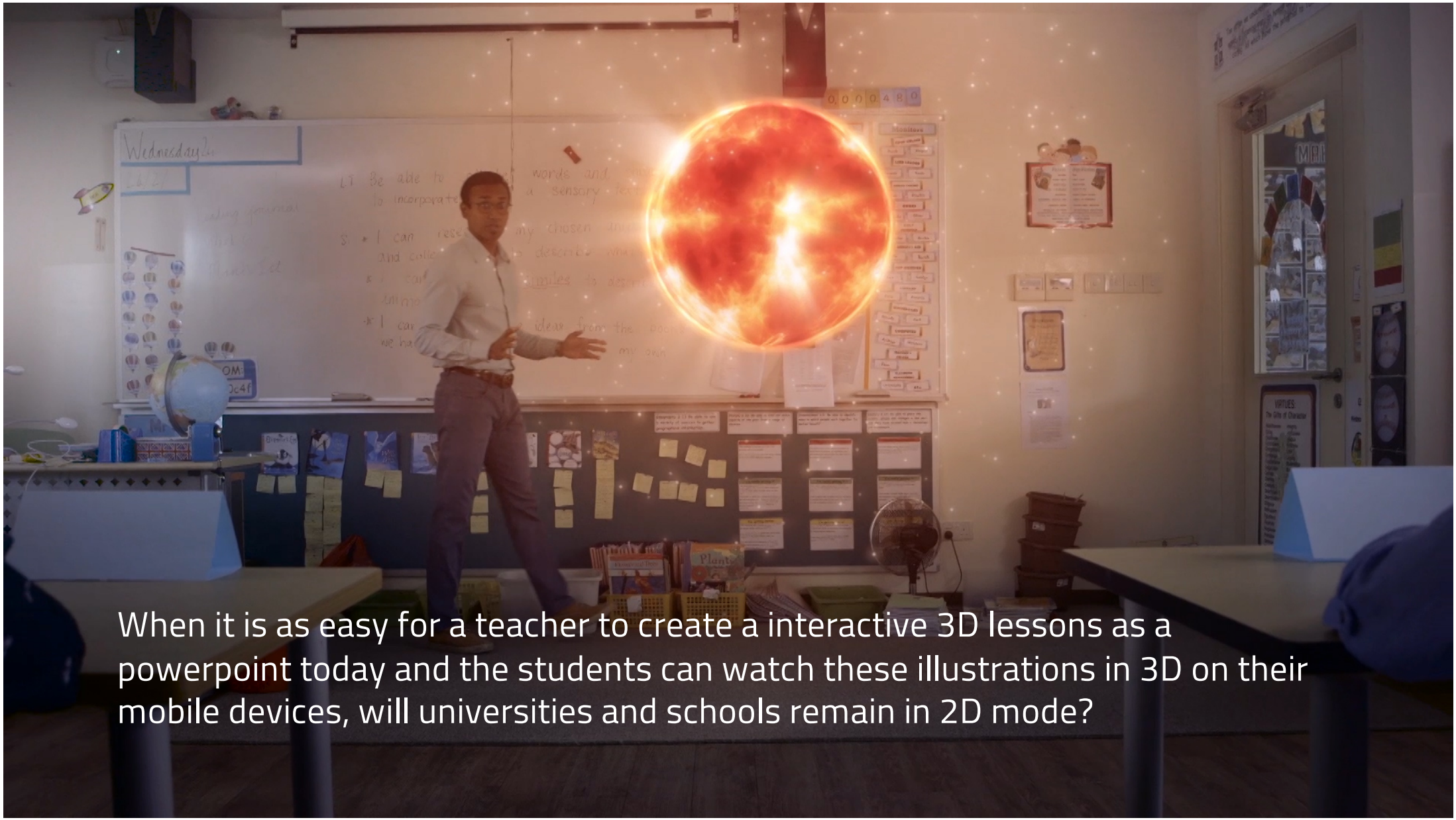
Category	Pre-AVR (2016)	Post-AVR (2018)
Placement of International students	85%	99.9%
Placement of all Students	92%	99.4%
Online Enrollment	385	625
Traditional Enrollment	3,460	4,000
Certificate Enrollment	300	2,230
Student Retention (Fall Freshman to Spring Freshman)	73%	92.6%
Student Satisfaction Survey	90%	98%
Faculty Technology Engagement	65%	95%
Access to AVR Learning Environments	40	400,000
Number of Countries Reached	89	106

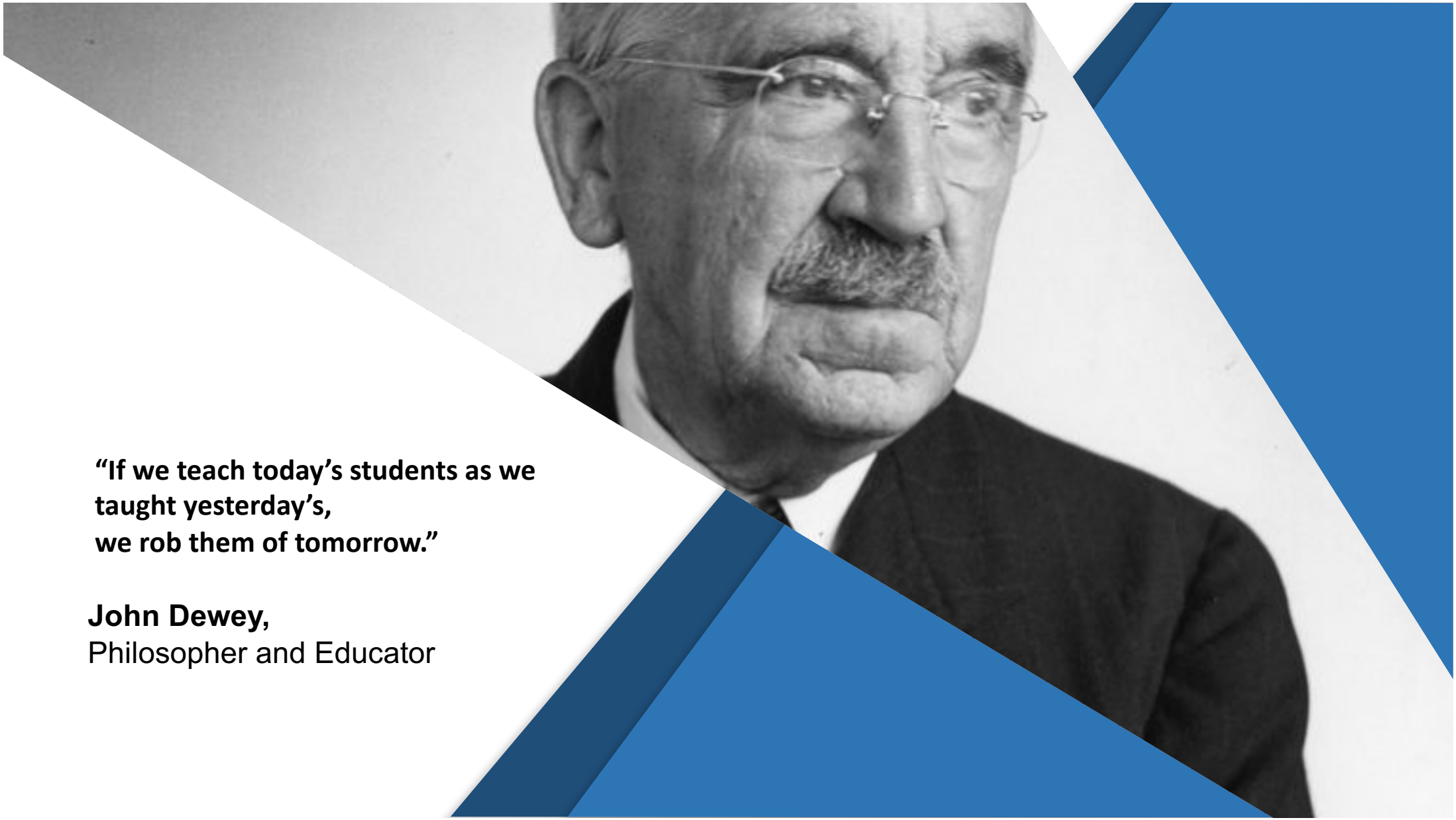
Mike Mathews
VP of Technology and Innovation

Follow Link to More Info:
https://youtu.be/lqsP2O9dDIg

Knowledge Transfer Does Not Have To Come to a Standstill

- The full impact of COVID-19 remains to be seen, but **great strides made in VR and AR technology** mean the **knowledge transfer around the world does not have come to a standstill.**
- EON Reality's **accessible and robust code-free AVR Platform** allows users to **create lessons in minutes** and provides the world with the ability to **address the mobility issues presented by the current pandemic.**
- While we need to keep our distance, **we can use technology to bring people virtually together** so we can stay safe while continuing to learn, train, and perform our daily duties.


When it is as easy for a teacher to create a interactive 3D lessons as a powerpoint today and the students can watch these illustrations in 3D on their mobile devices, will universities and schools remain in 2D mode?



**“If we teach today’s students as we taught yesterday’s,
we rob them of tomorrow.”**

John Dewey,
Philosopher and Educator