

CASE STUDY

**GAZİ
UNIVERSITY**

GAZİ UNIVERSITY FACULTY
OF MEDICINE CARRIED
THE ANATOMY LESSONS
TO VIRTUAL REALITY (VR)
WITH ROT STUDIO

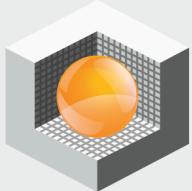
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GAZI UNIVERSITY

**Gazi University Faculty of Medicine
Carried the Anatomy Lessons
to Virtual Reality (VR) with
RoT STUDIO**



OVERVIEW

Gazi University Faculty of Medicine, in collaboration with RoT STUDIO, has integrated Virtual Reality (VR) technology into anatomy education, making it Turkey's first interactive VR anatomy lesson. Using RoT STUDIO's Designer Module, students can explore high-quality, interactive 3D medical models, enhancing comprehension and retention compared to traditional 2D materials.



Industry
Healthcare



Customer

Gazi University Faculty of Medicine
Department of Anatomy



Challenge

To train more competent physicians in a lecture hall, who know anatomy well and have learned new techniques, by making 3D medical models which look more interactive and more realistic



Solution

RoT STUDIO License - Designer Module



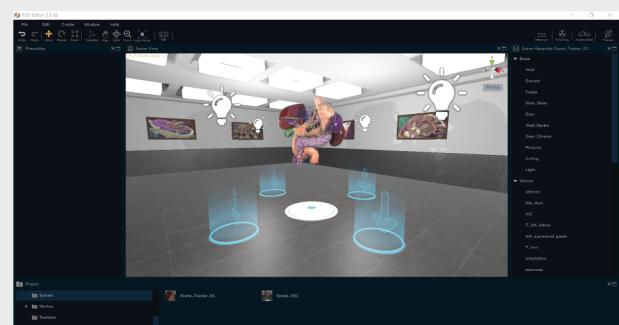
Result

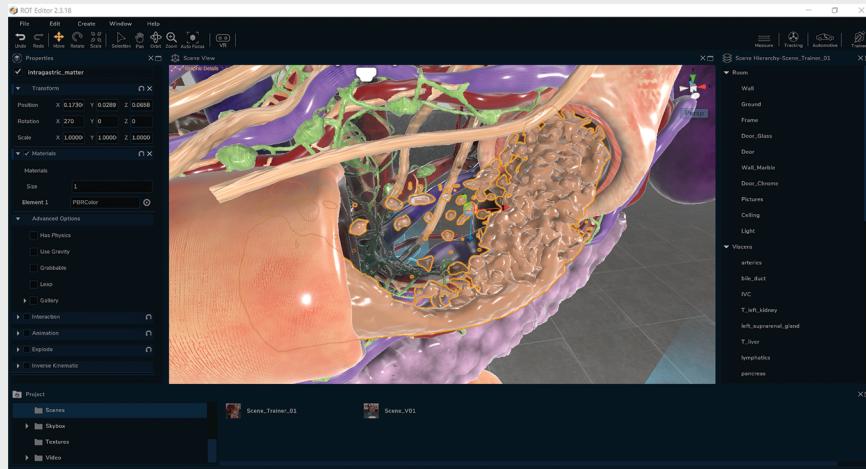
Through the designer Module of RoT STUDIO, the first local Virtual Reality content development platform was initiated

BRINGING ANATOMY TO LIFE WITH VR AT GAZI UNIVERSITY

Today, Virtual Reality (VR) technology has begun to transform medical education, providing students with more realistic and interactive lecture environments. According to research announced by Market Data Forecast in January 2022, the global education market, mostly driven by Virtual Reality (VR) technology, is estimated to be worth \$320 billion in 2021 and is expected to reach \$414 billion by 2026.

Gazi University is one of the leading institutions of virtual reality-based medical education. The first anatomy lesson in Turkey that includes an interactive virtual reality application was given by Prof. Tuncay Peker in 2019 at Gazi University Anatomy Department on RoT STUDIO platform.





"The more you give visual and auditory stimuli in learning, the more reinforcement is obtained in learning. In particular, new technologies need to be used when teaching anatomy lessons."

Prof. Tuncay Peker
Gazi University
Department of Anatomy

ACADEMIC NEEDS

- ✓ Understand the internal structures of human organs and observe their distances from each other in three dimensions
- ✓ Eliminating the difficulties encountered in obtaining satisfactory 2D images obtained from present computer programs and render engines
- ✓ Designing more realistic looking and interactive 3D medical models
- ✓ Offering interactive virtual reality applications in a lecture hall environment by reducing the need for physical prototypes
- ✓ Contributing to the training of new physicians who know anatomy well and who have learned the new techniques

Above all, we are offering an alternative method that is as entertaining and enjoyable as it is instructive, for the younger generations who love to use technology. RoT STUDIO Virtual Reality solutions have a great role in the success of our journey in the third dimension.

Prof. Tuncay Peker
Gazi University Department of Anatomy

SOLUTION

RoT STUDIO - DESIGNER MODULE

To address the challenge of making anatomy education more interactive and immersive, Gazi University Faculty of Medicine integrated RoT STUDIO's Designer Module into its curriculum. This module, a part of RoT STUDIO License, enables the creation of highly detailed and interactive 3D anatomical models that enhance student comprehension beyond traditional 2D materials.

This solution has transformed medical education at Gazi University by providing a cost-effective, scalable, and engaging alternative to traditional cadaver-based learning.

RoT STUDIO License Designer Module Offers:

- ✓ Drag & drop interface
- ✓ No-coding skills needed
- ✓ Fully immersive virtual environment
- ✓ Cloud-base collaboration
- ✓ Real time discussions
- ✓ Exploration of anatomical relationships dynamically

RESULTS OF VR-BASED MEDICAL EDUCATION



High Image Quality in Modeling

Understand the internal structures of human organs and observe their distances from each other in three dimensions



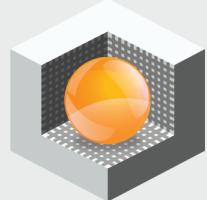
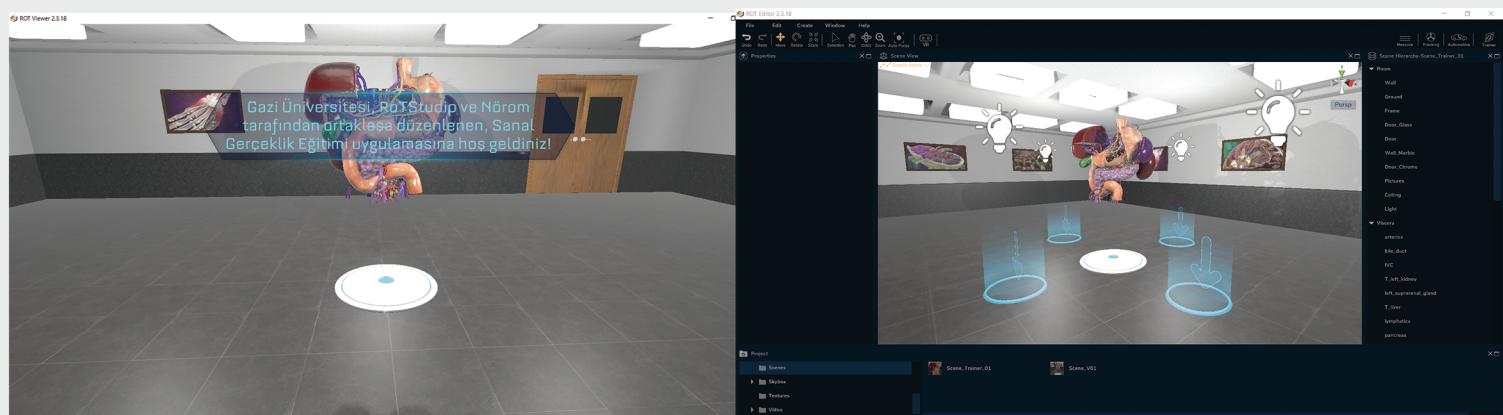
Interactive, Easy-to-Understand Lessons in the Classroom Environment

Prof. Tuncay Peker stated that 2D books and atlases are used in medical education, and virtual reality applications are only made in laboratory environments, "We've brought virtual reality applications to the lecture hall with RoT STUDIO solutions. In this way, interactive education makes it easier for students to grasp the lessons."



More Efficient Education

It was observed that students who received training with the "Brain Lecture Module" retained much more information in their memory than those who received classical type of education.



RoT STUDIO
Realization of Things

RoT STUDIO is Turkey's first local Virtual Reality (VR) and Extended Reality (XR) content and training development platform. It has been working globally for more than 20 years for its customers to create their own virtual reality content in an easy, fast, accurate and collaborative way.

ADVANTAGES OF RoT STUDIO

RoT STUDIO License consists of 2 modules:
RoT Designer, RoT Trainer

- ✓ Collaboration of the development teams, found in different locations on the same data in the same virtual scene
- ✓ Visualization of shared data and interactive collaboration
- ✓ Ability to take measurements and sections within the scene
- ✓ Avatar representation of the participants
- ✓ Voice chat in the scene
- ✓ Acceleration of decision-making processes
- ✓ Reduced need for physical prototypes

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