VRinHE

VIRTUAL REALITY IN HIGHER EDUCATION

Module 2

AR Tutor and Halo AR app

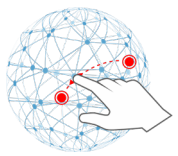April 2023 | University of Ruse

AR Tutor

- ARTutor is an Augmented Reality Educational Platform developed by Advanced Educational Technologies and Mobile Applications (AETMA) Research Lab at the International Hellenic University, since 2016.

- ARTutor is available free of cost to all the educators and the students around the globe, in order to help them to develop technology enhanced educational material and improve the educational performances and experiences.

- ARTutor is a domain-independent platform that can be used in many fields.
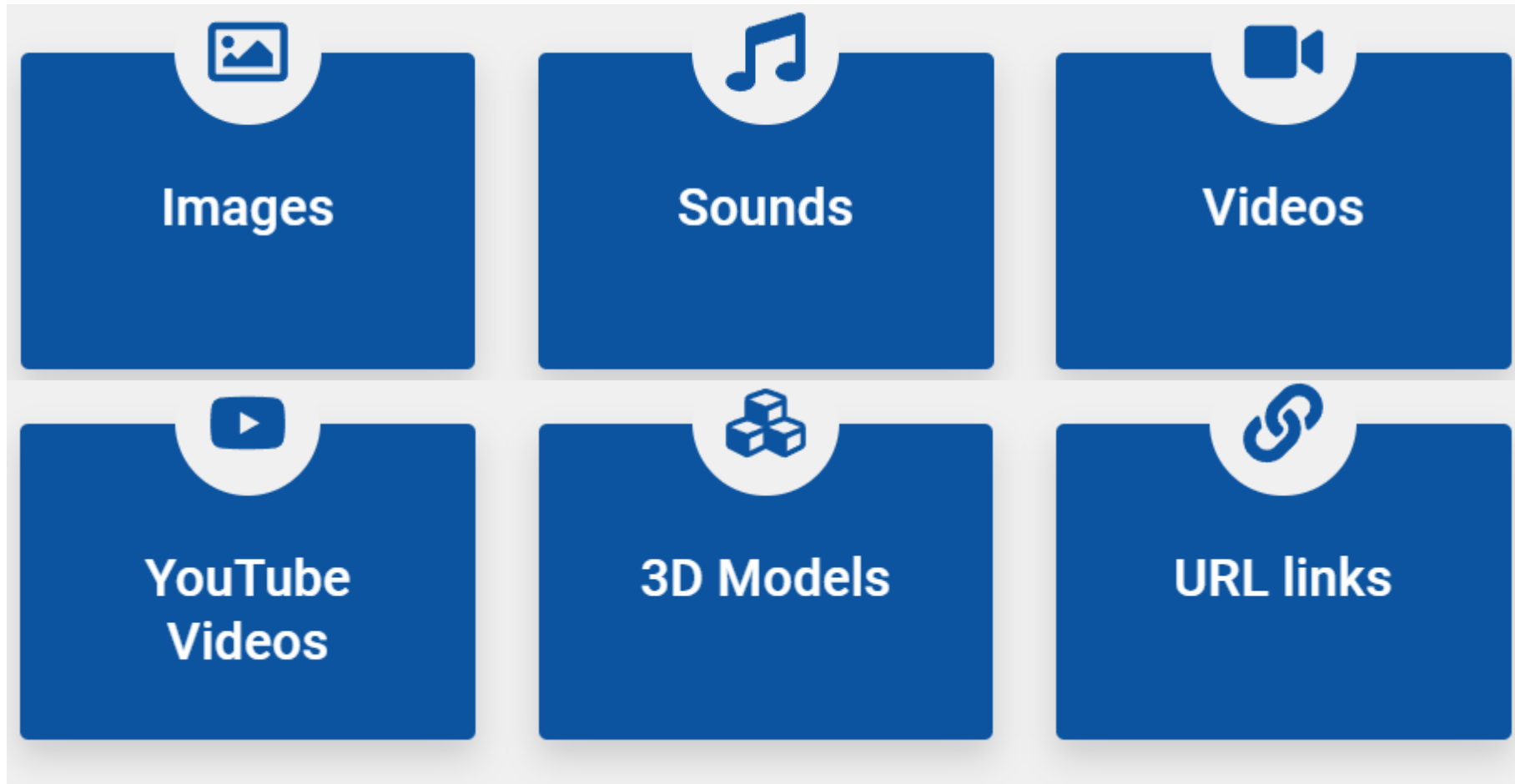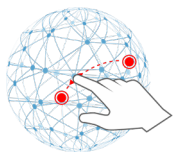
Ar Tutor

The main impact of ARTutor in the field of education can be summarized to the following objectives:

• Maximize students' engagement to the educational material (textbooks).

• Enable teachers with limited IT skills to develop augmented reality books and create highly engaging and immersive educational activities and experiences in the class.

• The implementation of a single mobile application to enable students to access all the augmented reality books in order to enhance their study and to promote independent, self-paced distance learning.

• Easy interaction with the enhanced digital content of any book using haptic commands in order to assist even students with movement disabilities.

What content can be added in ARTutor

Images

Sounds

Videos

YouTube Videos

3D Models

URL links

Creating AR experience with Ar Tutor

Step 1: Register for free or login if you have already registered.

Only registered users can create an AR Experience.

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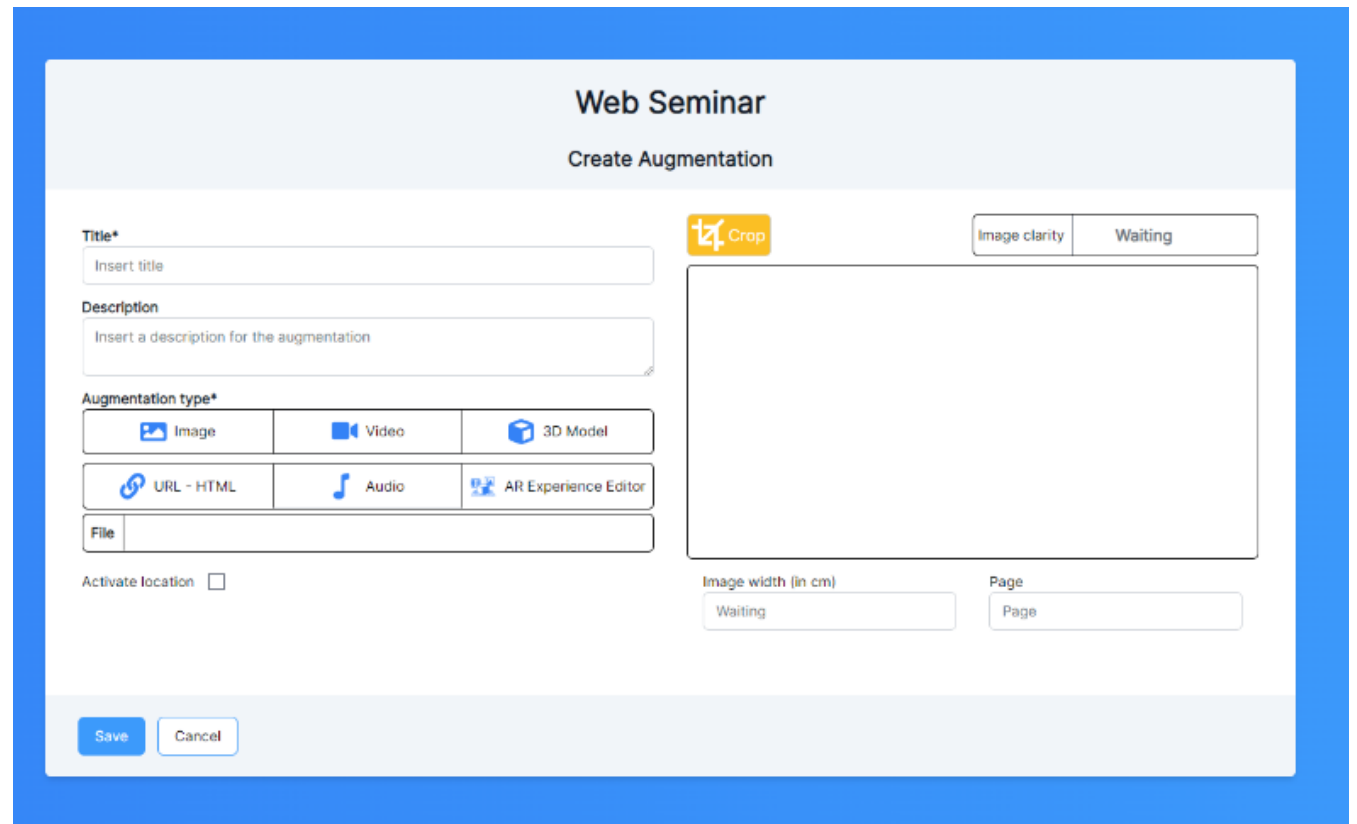
Creating AR experience with Ar Tutor

Step 2: Import resources: Use images, videos, sounds and models to add augmentations to each scene. Alternatively, use AR Experience editor to make complex and interactive scenes.
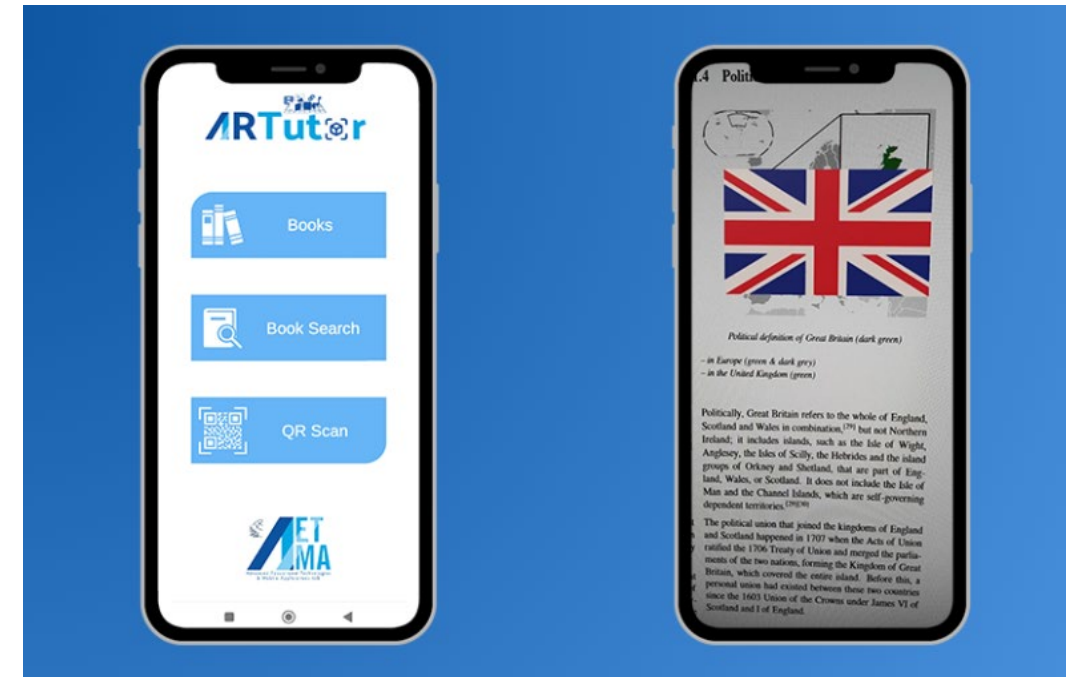
Creating AR experience with Ar Tutor

Step 3: View the AR experience using the ARTutor mobile application

and share it with everyone.

The mobile application is free for Android devices

that support ARCore.

The mobile application is free for iOS devices

that support ARKit.

No registration is needed in the mobile application.

Applications developed with ARTutor

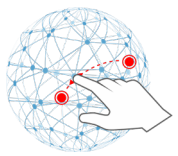| Application	Description
Online Training Program on Immersive Technologies for Education (ImTech4Ed)	The training was attended by teachers of different STEAM domains and students from different study programs (computing, game design, arts, humanities & social sciences) in universities of various European countries (Cyprus, Greece, Germany). In this way the innovative content was combined with the possibility of cultivating "21st century skills" concerning creativity and the ability to operate and collaborate in heterogeneous groups.
iPEAR (Inclusive Peer Learning with Augmented Reality Apps)	The project combines collaborative expertise of technology-enhanced learning researchers, computer scientists, and educators to build a strategic partnership to streamline the adoption of Augmented Reality (AR) technology in educational practice. The ARTutor platform is one of the 8 tools that are proposed in the iPEAR project for educational use. It is important to note that ARTutor is the only **FREE** platform available for educators.

Applications developed with ARTutor

Application	Description
A field trip enhanced with ARTutor, an augmented reality educational platform	Field trips constitute a powerful educational tool, providing students with the opportunity to acquire authentic, hands-on experiences by direct contact with the natural environment. Technological advances, especially augmented reality (AR) applications, can add a whole new dimension to field trips. A field trip took place at the volcano Sousaki, enriched with AR activities that were created using the educational platform ARTutor. The students that took part in the field trip were asked to locate different rock formations on site from the pictures they had been given. By scanning these pictures with the use of the ARTutor application on their mobile devices they were given access to educational material that had been loaded in the ARTutor platform. The augmentations were pictures, videos and text and provided a great deal of information regarding the rock formations of the volcano.

Halo AR

- Halo AR is a free mobile app that empowers anyone to create with augmented reality by connecting digital content with the physical world

- Halo AR app is a new way to create augmented reality within the mobile application. In a few easy steps, students can build experiences on images by uploading or capturing a picture and then layering an AR experience on top of it. The AR layers can be from photos, videos or 3D objects on the mobile device or found in the library of content in the application. After the experience is published, those that follow you can view it in augmented reality. Explore the example of my book coming to life in augmented reality using the Halo AR app.

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Features of Halo AR

- ✓ Mobile-first

- ✓ Cross platform

- ✓ Cloud + Offline support

- ✓ Rich media library

- ✓ Best-in-class performance

- ✓ Streamlined sharing

- ✓ Marker-based & Markerless AR

- ✓ Geolocation

Some terms

- **Halo** – the pair of trigger and overlay that you've decided to combine together. Example: YouTube video(overlay) that plays when you scan a physical poster (trigger). Create a halo – tab "Create" button.

- **Collection** – grouping halos. If you want someone else to see your halos, you must share the collection: the others must follow thew collection. This can be done in several ways: by QR code, by short link, 7-character collection code, by searching by title, username or description.

- **Feed** – curated list of videos of halos made by other users.
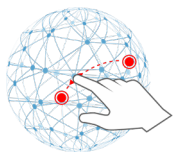
How to use Halo AR app
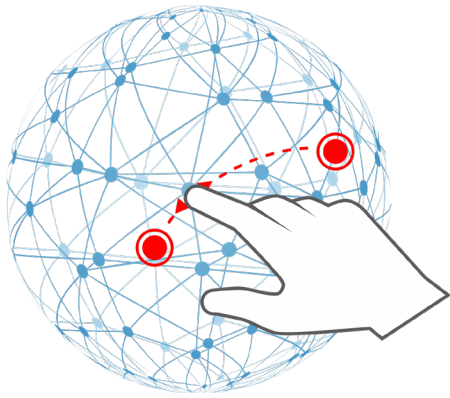
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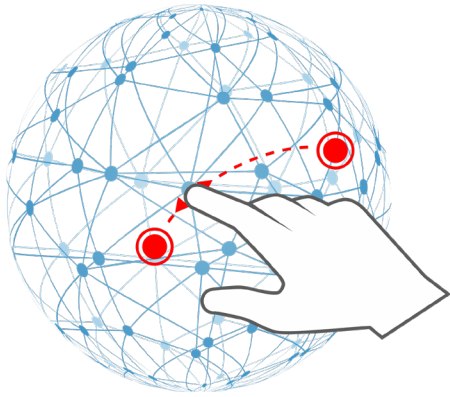
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