

FabLab SchoolNet

STEAM education and learning by Robotics, 3D and Mobile technologies

Multiplier Event

29th of October 2021



"Dunarea de Jos" University of Galati

Introduction

- CNR – ITD
- Contribution to the FLSN project:
 - Project Website (<http://fablabschoolnet.eu/>)
 - Learning Management System for Training materials (<http://edu.fablabschoolnet.eu/moodle>)
 - Learning model and assessment methodology
 - Learning Resource Repository
 - Supporting schools in running the pilots with AR technology
 - Organizing Training staff event on Augmented Reality in Italy
 - Dissemination and Sustainability
 - ArLectio®



Introduction to ARLectio®

- Analysis of the state of the art of commercially available AR tools with a focus on those that can support teachers and students in educational settings.
- Result: lack of free and easy-to-use tools for creating and exploiting AR educational content.
- Solution: design and development of ARLectio®



ARLectio® : As easy as possible...

- The main aim of this tool is to provide an easier way to produce and consume AR educational resources.
- Simple user interface.
- Few functions to implement AR educational contents on most media channels (images, video, text and 3D model).



ARLectio[®] architecture

- A web platform to manage a class and produce AR educational resources (used by teachers).
- A mobile app for iOS and Android to consume the educational resources.



ARLectio® web platform

- Manage the AR educational resources (create, edit, delete and organize).
- Accessible from <https://www.arlectio.eu/en/> and from <http://fablabschoolnet.eu/>
- The AR resource will have:
 - Subject;
 - Title;
 - Description;
 - Marker (photos, picture, QR code, ...);
 - Augmentation Type (Text , Image, Video, 3D Model);
 - Augmentation;
 - Position;
 - Last Updated (Automatically added).



ARLectio® web platform

Add Resource

Subject:

Title:

Description:

Marker:

AugmentationType:

Position:
 Top Left
 Top Center
 Top Right
 Middle Left
 Middle Center
 Middle Right
 Bottom Left
 Bottom Center
 Bottom Right

FillMarker:
 Yes
 No

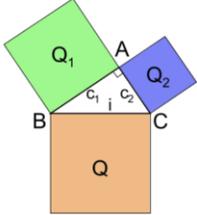
Augmentation:

LastUpdated: Tuesday, 04 February 2020 14:22



My Resources

Search

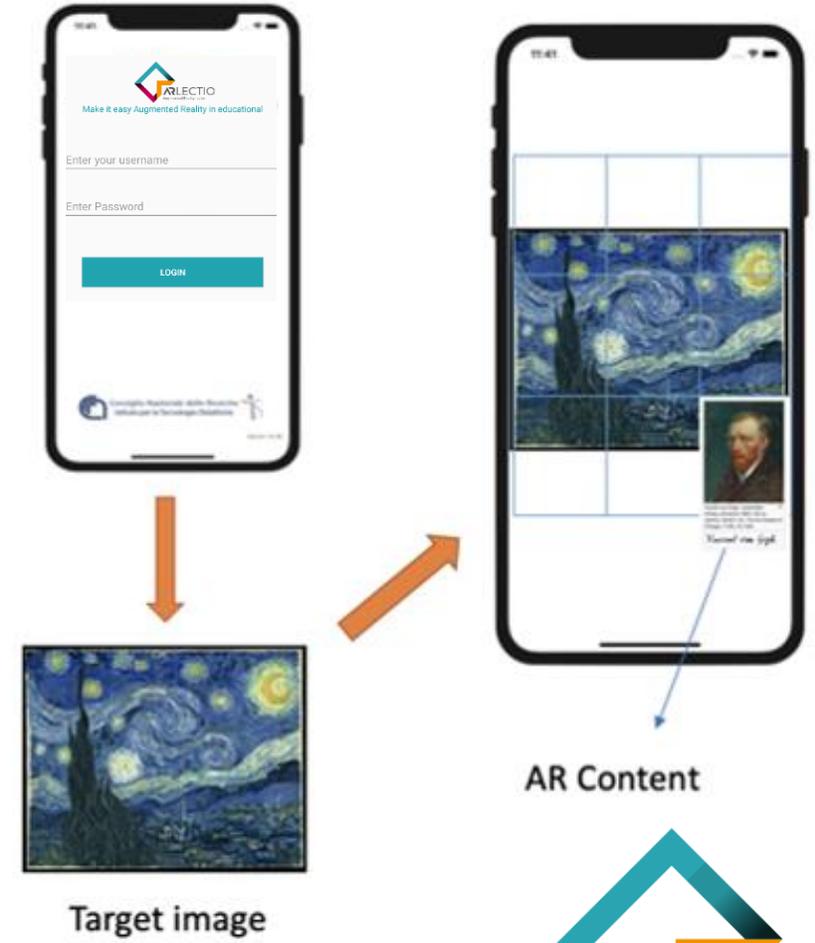
Marker	Title	Subjects	Type	Lastupdated	Actions
	Hex asphericon	Geometry	3D Model	26-11-2019 09:45:58	<input type="button" value="edit"/> <input type="button" value="delete"/>
	Pythagoras' theorem	Math	Video	31-01-2020 22:27:13	<input type="button" value="edit"/> <input type="button" value="delete"/>

Display #

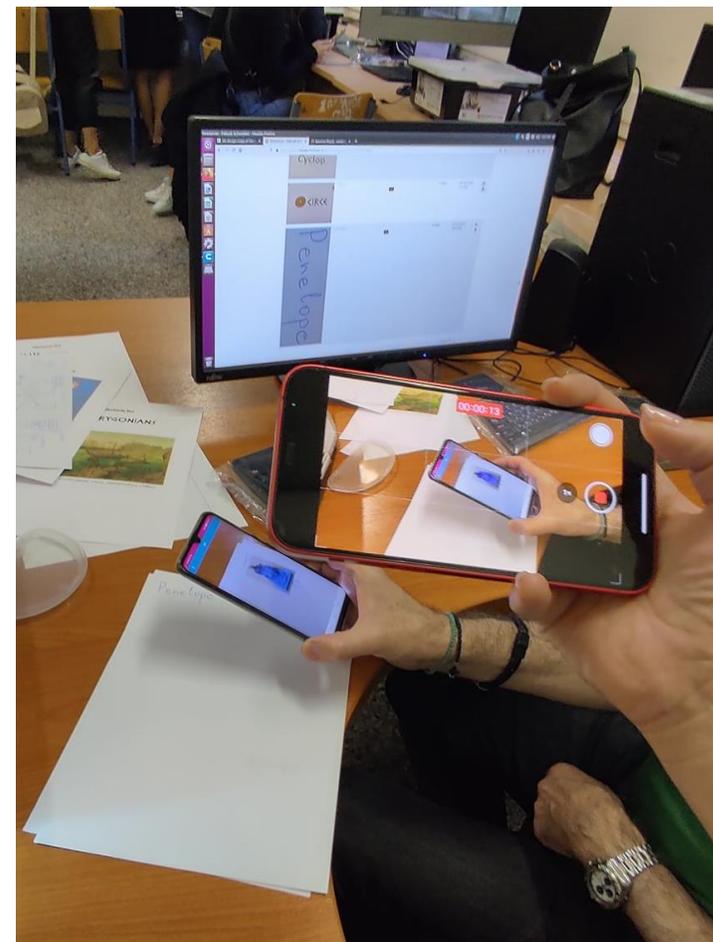
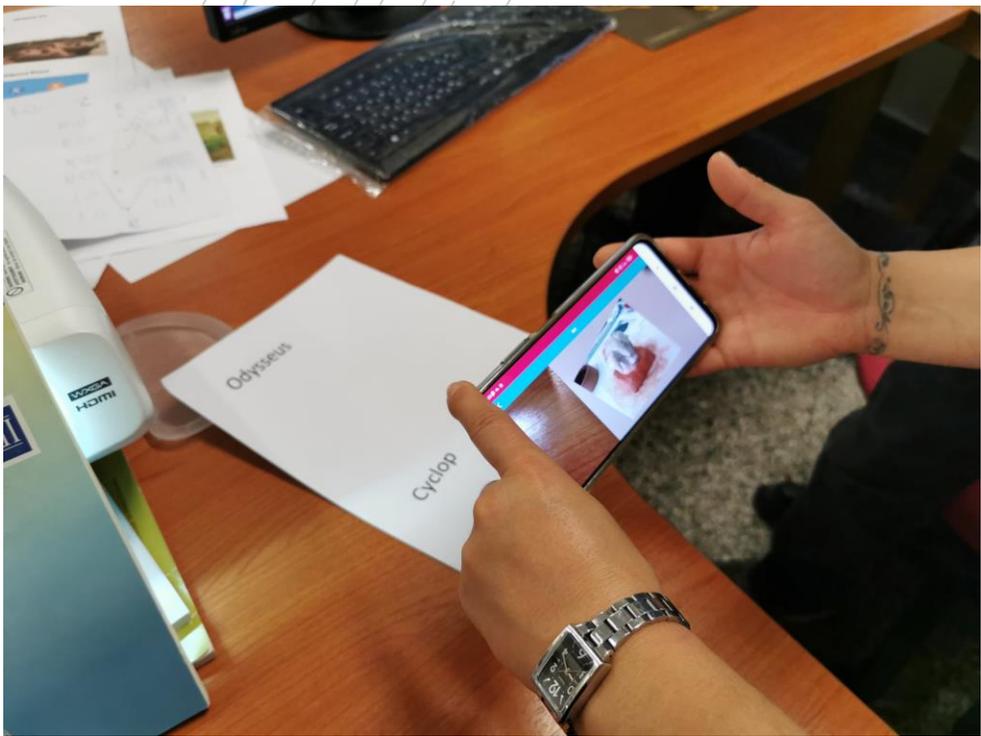


ARlectio® Mobile App

- The students access the educational AR resources created by their teaches.
- Resources are grouped by subjects.
- An interactive visual scanner is available to consume the educational contents associated to markers.



ARLectio® Mobile App



Speakers

davide.taibi@itd.cnr.it

mariella.farella@itd.cnr.it

National Research Council of Italy
 Institute for Educational Technology
 Via Ugo La Malfa 153
 Palermo - Italy



Thank you!



Davide Taibi



Mariella Farella



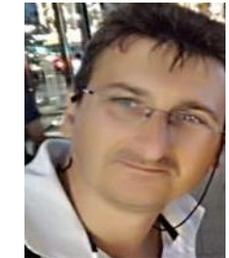
Marco Arrigo



Giovanni Todaro



Giovanni Fulantelli



Giuseppe Chiazzese