Co-funded by the Erasmus+ Programme of the European Union

In-VisIBLe Project (2021-1-IT02-KA220-HED-000031139)
Inclusive and Innovative learning tool for Visually Impaired and Blind people

In-VisIBLe

2021-1-IT02-KA220-HED-000031139

Inclusive and Innovative learning tool for Visually Impaired and Blind people

Project Partners

University of Bologna / **UNIBO, Italy**

Yeditepe University / **YU, Turkey**

Akademia Humanistyczno-Ekonomiczna w Lodzi/ **AHE, Poland**

Museo Tattile Statale Omero / **MO, Italy**

Centre for Research and Technology Hellas / **CERTH, Greece**

Centre of Education and Rehabilitation for the Blind/ **CERB, Greece**

Short Introduction

A **real access to culture for visually impaired and blind people** is an important issue and, when it comes to the Higher Education offer, inclusion is especially challenging for VIB in those fields of knowledge that apparently exclude them without remedy, the so-called “visual” arts. In-VisIBLe project aims at **improving the access of visually impaired and blind people to Higher Education in the fields of visual arts** by using and implementing innovative tools.

Aims of the Project

The In-VisIBLe project aims at answering to the growing need for inclusion in Higher Education, by using and implementing innovative tools for communication and fruition of cultural contents, to be integrated in HE didactic modules. It is focused on visual disability, as there are about 30 million people with visual impairment in the EU countries: a community which faces daily to discrimination, whose struggle for social and cultural inclusion is a social priority. Among the disciplines related to visual arts, the project is focused on History of Architecture, because it is a cross-sectorial field which is present in almost all the bachelor/master degrees in Arts/Architecture/Design. The main objectives of the project are given below:

1) Building inclusive higher education systems: The In-VisIBLe project's most relevant sectoral priority is contributing to build more inclusive Higher Education (HE) systems for visually impaired and blind (VIB) through the use of digital technologies and innovative tools and approaches. The project focuses especially on those disciplines in HE from which VIB seem to be excluded without remedy, i.e. those disciplines related to "visual" arts. Among them, the project is especially focused on History of Architecture, because it is a cross-sectorial field of study which is part of the almost all the bachelor/master degrees where visual arts have a central role (Arts/Architecture/Design). The project will create HE Innovative and Inclusive Didactic Modules (IDM) of History of Architecture, allowing VIB students to access the university courses attended by their non-disabled peers. The In-VisIBLe Teaching & Learning Web Platform with all the materials/tools produced and the "Guidelines to make architecture and visual arts accessible to VIB" will be the main tool for a train-the-trainer action that will boost the use of the In-VisIBLe IDM throughout the partner countries HE systems and potentially through other HE systems in EU and in the world.

2) Inclusion and diversity in all fields of education, training, youth and sport: The IDM will be exploited not only in traditional face-to-face HE courses, but they will also be included in Massive Open Online Courses (MOOC) accessible to VIB and addressed to a much larger audience of learners/ users. Potentially anyone interested in the fields of Arts/Architecture/Design will have access to the In-VisIBLe MOOC. Due to the involvement of non-academic organisations in the consortium, and also of several associated partners (research institutes, museums of visual arts, educational/cultural institutions, associations etc.), this larger audience made of "lifelong learners", professionals and any other kind of users is not just potential or wished for, but a reality within reach.

3) Stimulating innovative learning and teaching practices: The In-VisIBLe IDM are deployed using innovative educational tools: 3D architectural models fit for VIB people; 2D tactile plates with architectural drawings; Artificial Intelligence (AI) based on visual information to recognize building types and describe architectural images with captions and vocally. These features guarantee the achievement of several objectives linked to the learning and the acquisition of skills related to ICTs, in particular: (1) It promotes the educational approach of the new technologies with greater future projection, the 3D printing and the use of AI, and (2) It fosters the acquisition of key competences related to ICTs and to innovative practices in the participating teachers and students.

Outcomes of the Project

The main expected outcome of the In-VisIBLe project is to improve inclusion of people with special needs in Higher Education and specifically in the fields of Arts/Architecture/Design, creating Innovative and Inclusive Didactic Modules in History of Architecture accessible to students with visual disabilities, by using and implementing innovative tools for communication and fruition of cultural contents related to visual arts. Another expected outcome is to implement and develop innovative didactic tools, specifically designed and applied to meet the needs of users with visual disabilities in the fruition of artistic and architectural contents, but also able to become an understanding facilitation for all potential users. This will require the development of tools to make the project's results accessible to as many people as possible: MOOC, In-VisIBLe Teaching & Learning Web Platform, guidelines. Finally, the project is expected to draw in a broader cross-section of society into HE, establishing collaborations with cultural institutions, organizations for VIB, research networks, relevant stakeholders, and implementing them in the long run also after the project's end. It is also expected that significant institutions and organizations for visually impaired and blind people, starting from those which are associated or full partners of the In-VisIBLe project, will consider recommending the Innovative and Inclusive Didactic Modules and tools to their members/networks. Through the publications/workshps/conferences that will be published/organized during the project lifetime, the project results are expected to reach a larger number of educators researchers and relevant stakeholders around the world.

Participants from Yeditepe University

Prof. Dr. Ece Ceylan Baba, Department of Architecture
Assoc. Prof. Dr. Dionysis Goularas, Department of Computer Engineering
Cavide Balkı Gemirter, PhD(c), Department of Computer Engineering
Res. Assist. Erdal Kondakcı, PhD(c), Department of Architecture