



## 1st Learning Teaching Training Activities



# DIGITAL SYSTEMS FOR A SMART APPROACH TO ART

headquarters: "Web per tutti" Association, via Circonvallazione Orientale n.4 - Sulmona

## Documentation of the activities of 12 and 13 November 2019

### 12 November 2019

**morning:** Danilo Borri - Guided tour of the historical center of Sulmona with particular attention to the facade of the Church of the SS. Annunziata, whose tactile interactive 3D audio guide will be created.

**afternoon :** Emanuela Amadio - Stefano Colarelli

Presentation of Hi-Storia, a project to disseminate cultural heritage through the participatory planning of interactive tactile audio guides .

Presentation of projects carried out with schools in Italy and France, device testing.

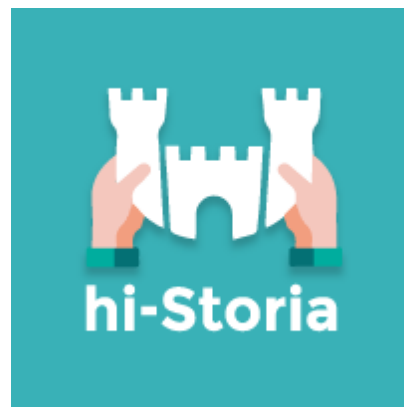
*Practical exercise:* development of digital content for the audio guide .

Analysis of the components of the prototype already made: model made with a 3D printer, Arduino board connected to a computer, user interface.

Analysis of the software necessary to make the audio guide.

[www.main.audacityteam.com](http://www.main.audacityteam.com) - free, open source and multiplatform audio software, a multi-track audio editor and recorder for Windows, used to insert music and sounds in the audio guide .

[www.freemusicarchive.org](http://www.freemusicarchive.org) - site that allows you to download music legally. Each participant has chosen soundtracks to include as a background to the audio guide .



Other recommended sites where to download legal music:

[www.freestockmusic.com](http://www.freestockmusic.com) and [www.bensound.com](http://www.bensound.com)



[www.soundbible.com](http://www.soundbible.com) and [www.freesound.org](http://www.freesound.org) - these sites were used to choose sounds and special effects, ie bells ringing, doors opening ...

The texts for the audio guide were recorded in various languages, texts selected previously and written by the each partners.

### November 13, 2019

**morning:** *Anna Paola Pacella* - Multisensory guided tour of the Santa Chiara Museum (separate documentation)

**afternoon :** *Emanuela Amadio - Stefano Colarelli*



*Practical exercise:* design of a simple 3D device that represents the facade of the Church of the SS. Annunziata. Use of 3D modeling software and printers for device production. Arduino board connections.

Two 3D design and modeling software were used.

**Tinkercad** : free 3D design software, developed by Autodesk. The main features:

- it is a software *cloud* , usable directly from the web browser connected to Internet , no installation required on your PC. All the 3D drawings created can be accessed from any PC or tablet using your TinkerCAD account ;
- it is simple to use , because it is designed for neophytes of 3D design;
- is a geometric modeling software , which uses exclusively solids, therefore particularly suitable for making drawings representing buildings and architectures.

Each participant created an object that was printed later with the 3D printer.

**SketchUp** : free and fairly simple 3D modeling software. It is used online like the previous one. With this software each partner has designed a part of the Annunciation model.

The recordings of the descriptive texts of the sensitive points of the model in the different languages have been completed: Italian, English, Greek, Bulgarian and Spanish.

Here the link to the presentations by Emanuela Amadio of Hi-Storia:

<https://www.hi-storia.it/edu/english-contents/>

For further information you can consult these pages (in Italian):

1) ARDUINO <https://www.hi-storia.it/edu/courses/assemblare-programmare-elettronica-hi-storia/lezioni/circuito-capacitivo/>

2) 3D MODELING <https://www.hi-storia.it/edu/courses/corso-tinkercad/lezioni/introduction-tinkercad/>



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Video of the inauguration and photos published on the Facebook page of the "Web for all" Association:

<https://www.facebook.com/webpertutti/posts/2684574794931266>

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