

A DIGITAL JOURNEY IN EUROPE

transnational project meeting **PISA** 3-6 May 2017



Laboratorio di Cultura Digitale



Erasmus+

Wednesday, May 3

- Arrivals. When you have collected your luggage, please call the hotel at this number +39 050 502120 a shuttle will come to pick you up for free
- 19.30 ● pick up and dinner at the wine-tasting trattoria "L'arte del bere". Dinner 22 euro each

Thursday, May 4

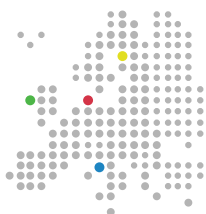
- 8.30 ● Meet Serena at the hotel and walk to Cambini school
- 9.30 - 10.00 ● welcome and IC Toniolo presentation
- 10.00 ● coffee break
- 10.15 - 11.00 ● visit to the classes at Toniolo (middle school)
- 11.20 - 13.00 ● transfer to Toti school and visit to the classes at Toti (primary school)
- 13.00 ● lunch at Toti school
- 14.30 - 15.15 ● transfer to CNR - National Research Council. Introduction to CNR Area and to the Institute of Science and Information Technology (G. Lami - ISTI)
- 15.15 - 15.45 ● visit to the Laboratory of Visual Computing of ISTI (M. Callieri - ISTI)
- 15.45 - 16.30 ● visit to the Information and Telematic Institute and Registro.it (L. Rossi - IIT)
- 17.00 ● back to the hotel
- 20.00 ● meet at "In domo" trattoria, via S. Maria n. 129 (50 m from Piazza dei Miracoli). Dinner euro 25 each

Friday, May 5

- 8.45 - 10.30 ● Dreamslab visit - Scuola Normale Superiore di Pisa
- 10.30 ● coffee break
- 11.00 - 11.30 ● LabCD visit
- 11.30 - 13.00 ● coordinators meeting in LabCD
- 13.00 ● lunch at "Al Signor Mimmo", via Cavalca n. 44
- 14.30 - 16.00 ● Francesca Cecchi (Scuola Superiore Sant'Anna - Istituto di BioRobotica), Educational Robotics in LabCD
- 16.00 - 17.30 ● Tommaso Masini, workshop on Educational Robotics in LabCD
- 19.30 ● pick up at the hotel, dinner in Tirrenia by the sea. Dinner 30 euro each

Saturday, May 6

- Rafting in Garfagnana (6 people) or free time or you can go to Cinque Terre (with Enrica, a special guide)



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Training activity on Educational Robotics in LabCD

Francesca Cecchi

Istituto di BioRobotica

Scuola Superiore Sant'Anna

Agenda

1. Educational robotics
2. Example of laboratories with students of different class level
3. Presentation of robotics kits

Tommaso Masini

Laboratorio di Cultura Digitale

Università di Pisa

Agenda

1. Activities's carousel videos, photos and digital products realized from the students working with Sphero
2. Sphero and SPRK
Sphero hands-on: how it's made, sensors and actuators, technologies used.
SPRK: how it works, installation and first setup
3. Let's code
Tutorial on how to create a simple program and run it on Sphero
Activity Challenge with teams

Educational Robotics

Educational Robotics consists in the use of robots as a channel for teaching and education.

Despite being appropriate for teaching science, math and technology (STEM subjects: science, technology, engineering and mathematics), it has also many connections with other school subjects such as literature, arts and theatre thus becoming a new educational paradigm called STEAM (where A stands for Arts).

Robotics is extremely motivating: learning with robots increases children engagement and a student-centred learning approach. It develops a problem-solving attitude, foster a trans-disciplinary approach and encourage team work. The BioRobotics Institute promotes Educational Robotics programs to educate young people in deploying and using robotic technologies with strong collaborations and synergies between municipalities, university, schools, enterprises, citizens, investors, stakeholders. The Institute has set up a local Educational Laboratory on Robotics developing new tools that enable primary, secondary and high school students to expand upon their interest in robots. Research in the field of educational robotics is focused on the study of the methodology for implementing Educational Robotics in schools and on the measurements of its effects on students' learning.

Workshop on Educational Robotics

Using Robotics and Coding to introduce or extend topics taught in classroom, focusing attention on the value of Educational Robotics as an instrument to assimilate abstract complex concepts of the humanistic and scientific fields. Workshop participants will see many projects done in several primary and secondary schools and how to realize these activities beyond the coding of the robot Sphero using a visual programming language similar to Scratch named SPRK.

IMPORTANT: To participate to the workshop actively, we would recommend what follows before coming to Pisa:

1) BYOD

Bring Your Own Device because our robots need it, it may be Android or iOS system operation

2) Install the app

The app is "Lightning Lab", that can easily be found on App Store (Apple device) or on Play Store (Android device). More infos available here <https://edu.sphero.com/d/>

3) Create the account

When you first open the app, the page requires to create your personal account, which you use when we'll work together. You can also directly create the account from here <https://edu.sphero.com>

4) Explore

Take a look at the programs created by others users registered in the app "Lightning Lab".

This is a good start, that specifically shows you what you're going to be able to do after the workshop :-)

Should you not be able to bring your own device, no worries, we will supply one for you :-)