



Research Cluster: Make – exploring innovative approaches to the ideation of artefacts and spaces | Timespan: 2016 - 2018

COSTORY Co-Designing Smart object-based storytelling with children

CO-STORY research project aims at creating smart objects for children through participatory design process in which children are the main stake holders, drivers of the new insights and solutions to their own problems.

Team

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Today, digital technologies have been entering the field of education, introducing possibilities of limitless information and connection. Starting from this phenomenon, CO-STORY research project aims at asking critical questions about the use of technology, involving children and adolescents in the whole design process from idea generation to the final testing.



Figure 1. Emotion Capsule

The project not only gives rise to new smart object ideas, but also creates awareness in children about how they can play, hack and invent new technology with a reasoning process, in which they ask critical questions in order not to produce only gadgetry, but to make sense of what they create by identifying their real needs and desires. They are no longer mere consumers of digital information; but they become the creators.

The project took part of a larger anthropological and educational project named 'Sguardi Oltre. Esperienze ai confini del Quotidiano' aiming at improving and enlarging the space for interrelations in the schools, in Scandicci, Florence. Thanks to this collaboration, the project involved around 350 students in the design process.

In the beginning of the project, co-design workshops were organized in a class of 26 students (14-15 years old) in which Emotion Capsule idea was created. The workshops were conducted by Roberta Bonetti (anthropologist) together with Secil Ugur Yavuz (designer) by using various design tools and probes there were developed in order to enhance children's participation and trigger their imagination for creating smart object ideas (IMAGE 01-02). As a result of idea generation sessions, Emotion Capsule idea was developed as a working prototype that was later tested by 12 classrooms (8-15 year old).



Figure 2



Figure 3

The Emotion Capsule is a digital/physical container of stories told by children and shares these stories with others (IMAGE 03-04). The capsule was made by 3D printed PLA material and embedded with Bluetooth sensors, actuators and a mini-speaker . Through the capsule experience, the participants can express themselves anonymously to others, and they can hear/feel other participants' thoughts (IMAGE 5). The object enhances collaboration and physical connection between them and helps them to reflect on their common problems.

The uniqueness of the project comes from its participatory feature, in which children become active participants of the design process. The project foresees further developments to circulate the final prototype in different classes and collect/share more stories from children.



Figure 4