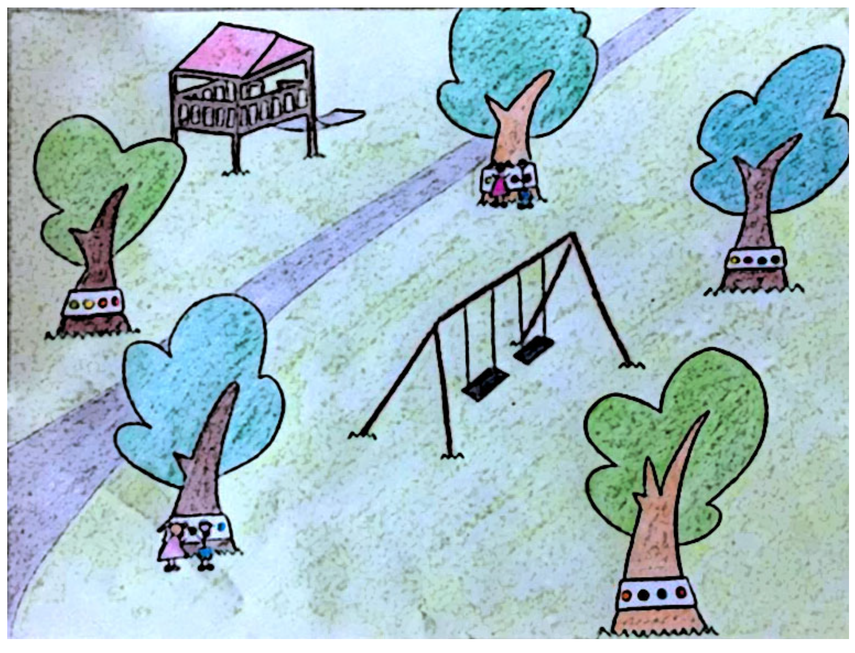
GEKI

AN INTERACTIVE TOY ENCOURAGING KIDS TO PLAY OUTDOOR

Geki is an interactive game, which aims to stimulate kids in the first years of primary school (5/8 years old) to play outdoor and explore natural elements. A tangible band equipped with 4 bright buttons and 2 speakers tied on a tree. The children interact with the device through lights, sound and touch. Taking advantages of the functionalities provided by the device, we designed a possible ideal game to install on it. The children are driven by an educative story, from a band to another, in a “treasure hunt”. During the enterteining task the children explore the nature and reflect on the moral of the story.

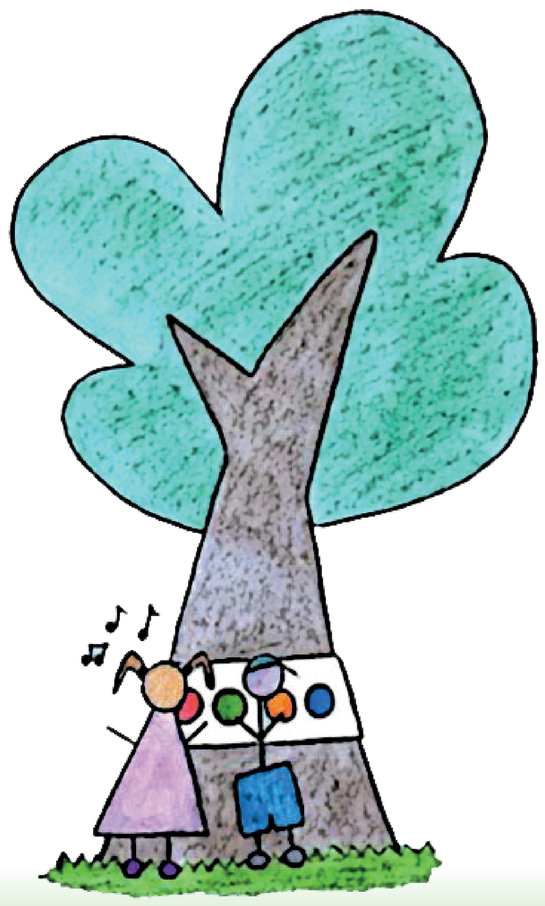
THE CONTEXT

Some studies assessed that the new digital context offers opportunities for children’s learning. Hovever, smartphones and tablets are becoming a sometimes abused way to entertain children. Starting from these considerations, we decided to design an interactive smart device that offered by technology to encourage kids to interact with the nature and learn different important educational values. We gave to the project the name GEKI, which is the acronym of GEt-out Kids and Interact.



THE DEVICE

The Geki experience is indeed based on the use of a tangible smart device that allows kids to hear sound, see lights and interact through touch while they are enjoing the natural world.
The smart object is a band with LEDs, speakers and buttons managed by a microcontroller. The conseguent effect of a touch can be configured using JSON files, so that it’s possible to define whichever interaction/game you want.



THE GAME

Through the interaction with the band, the kids are driven in a “treasure hunt”. Eache tree tells a chapter of a story. The kids, listening to the clues told in the chapter, will find the next tree in order to know the next part of the story. When the children reach the end, they learn the educative moral of a attractive story.

THE USER STUDY

We plan to conduct an utilization study that provides for 2 phases: a meeting with the teachers and one with the children. In the first one we try to get indications on the efficacy of the physical object, to review the subject of the stories and identify new ideas to improve the system. The second one is more focused on understanding how much kids are interested in the physical object, which kind of interaction is more attractive for them, if there are games they prefer to do in a park and if there are different attitudes towards using the game according to their age.

Giovanni Filaferro
Politecnico di Milano
giovanni.filaferro@mail.polimi.it

Michele Gennaioli
Politecnico di Milano
michele.gennaioli@polimi.it

Giuseppe Manzi
Politecnico di Milano
giuseppe1.manzi@mail.polimi.it

Valentina Menabue
Politecnico di Milano
valentina.menabue@gmail.com

POLITECNICO
MILANO 1863