

FBK paper awarded with honorable mention at the International Conference on Human-Computer Interaction

March 29, 2019

The study on the use of technology in the Piedibus Smart project by the FBK researchers will be awarded in May at the CHI (Computer Human Interaction) 2019 international conference

The paper [*A Walk on the Child Side: Investigating Parents and Children's Experience and Perspective on Mobile Technology for Outdoor Child Independent Mobility*](#), authored by Michela Ferron, Chiara Leonardi, Paolo Massa, Gianluca Schiavo, Amy L. Murphy, Elisabetta Farella is among the works that received the **honorable mention** from the scientific committee of the [International conference of Human-Computer Interaction](#).

The paper, which will be presented at CHI 2019, scheduled for May 4-9 in Glasgow, describes a study aimed at ***investigating the appropriation processes and the perspectives of children, parents and volunteers regarding the technology*** used in the [Smart Piedibus](#), developed by E3DA within the [CLIMB project](#). The article also discusses the ***risks and potential of the use of technology for the development of children's independent mobility practices***, proposing a series of ***insights and suggestions for the design*** of these technologies.

"We performed a longitudinal evaluation of several months of the technology appropriation aprocess with volunteers, parents and teachers, and we collected very interesting elements on how technology is perceived and used – said **Michela Ferron**, researcher of the **FBK i3** Unit and co-author of the paper -. In particular, we observed the appropriation process of the technology used in the Smart Piedibus in the schools of Vela and Cognola (Trento) and saw the change that took place with the transition from paper to technology".

CLIMB uses and integrates advanced technologies and IT solutions and, unlike GPS devices, it does not track the child at intervals.

“Some literature suggests that tracking is detrimental to the development of the child’s autonomy and his ability to solve problems, but also on how it can negatively affect the trust aspects of the parent-child relationship – the researcher added -. Our system, rather than on GPS tracking, is **based on a proximity sensor that uses bluetooth technology and communicates with an app** installed on the smartphone of the volunteer who follows the children on the home-school or school bus-home trips. So the system, called tagging, records the presence of the child close to the volunteer, but it does not track all their movements”.

From the study it emerges how the experience of technology “disappearing” from the project and its ability to combine and at the same time guarantee trust and control turned out to be positive.

“An interesting thing that we noticed – and which was appreciated by students, parents and volunteers – is how in the evolution of the project the device became a virtually invisible element. While at first it was carried around the neck by children, over time it was decided to place it in their backpacks: thanks to this operation, the tag became a “hidden” part of the project, which in turn became less cumbersome, freeing up time for the volunteer who was able to devote more time to the relationship with the children. Overall – concludes the researcher – the whole project has been assessed very positively by the parents, because it represents a fair compromise between giving children autonomy and trust, allowing them to explore the world and develop their autonomy, and at the same time have control and adequate safety conditions”.

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