Interactive VIKA wall aims to empower seriously ill children

‘The hospital as a living lab. What could be better?’

At first sight, VIKA looks like a relatively simple interactive object. But appearances can be deceptive. Behind the moving wall, developed by BSc students of Delft University of Technology for their ‘Interactive Environments’ minor, lies a richer story that began when the Princess Máxima Centre for Paediatric Oncology asked for an environment that does not focus on being ill, but on encouraging children with cancer, to grow.

It was no coincidence that the Princess Máxima Centre approached Delft University of Technology. Both organizations, together with the Revalidatiefonds, collaborate in the research project *‘Meedoen = Groeien!’*, which is dedicated to preventing or lessening delayed physical and psycho-social developments in seriously ill children. The ultimate aim is to drop dramatically the risk of cognitive, emotional, social or behavioral problems later in life.

Healthy interaction

Seriously ill children benefit from healthy interaction – that much is clear. “Children with cancer often feel sick or nauseated because of the chemo,” says Aadjan van der Helm, assistant professor in interaction design, and involved in VIKA. “There are always concerns about what’s going to happen, and chances of survival. And this all has an effect on the parents, of course, who are often very protective of their child, sometimes to the extent that they barely let their child take a single step.”
And all this while children, however sick they may be, want to play. “Play stimulates a child’s physical and social development,” adds Marco Rozendaal, university lecturer in interaction design. “*Playing together* also alleviates parents’ stress levels. It helps to process emotions, makes it easier to deal with unpleasant experiences, and improves communications between parent and child.”

‘VIKA can empower children and parents’

Iterative process

VIKA was developed by students from a wide range of backgrounds during the minor ‘Interactive Environments’. Van der Helm: “The group included students of Engineering, Industrial Design, the Built Environment, Psychology and a number of wizards. The design phase followed an iterative process. Prototypes were made rapidly, put to the test, then evaluated and discussed. VIKA evolved step by step, in a very interactive fashion. All in all, it was a very successful assignment, thanks to the students’ enormous commitment.”

From a distance

The results are promising, agrees Rozendaal. “VIKA is a wonderful installation that subtly drives a wedge between the often rather over-anxious relationship between parents and their sick child. The 78 rotating flaps in the wall respond very strongly to small children and less so to adults. VIKA truly empowers children; it gives them an incredible boost. Children can play with it on their own, or with other children. Parents don’t necessarily need to be there. They can watch from a nearby couch, while still having a visual, audible connection, with their child.”

‘In dialogue with each other we can make the world around us a little bit better’

Meaningful design

One of the great things about an interactive environment like VIKA is that it engages the medical staff, as well as the children and doctors. “Of course, it affects the nurses and doctors that pass by,” says Rozendaal. “That’s the strength of interaction design. Installing VIKA in the actual hospital context allows us to assess the actual effect on children, parents and visitors and how the installation might become embedded in medical practises. People will wonder how to keep VIKA clean. Or how to ensure the safety of the object and its surroundings. The hospital as a living lab. What could be better?”
Van der Helm adds: “Thanks to their meaningful design, interactive environments don’t make us feel that we’re dependent on technology, but in control of it and, in dialogue with each other, we can make the world around us a little bit better.”