

37. Tikkertje 2.0

Interactive playgrounds are installations that combine the benefits of traditional playgrounds for children with advances in technology. In our demo we show the Interactive Tag Playground (ITP), a modern, interactive version of the century-old game called 'Tagging' or 'Tikkertje' in Dutch. With the Interactive Tag Playground we actively steer the interaction between players. To this end, players are being tracked using Kinects and additional body-worn sensors. In its most basic version we project differently colored circles around each player to indicate the role of tagger or runner. When these circles collide, a 'tag' is detected and the roles of the players switch. We also add novel interactive elements such as power-ups and bonuses. Apart from entertainment, the Interactive Tag Playground is also a tool to study how children interact with each other and with the environment. Our final aim is to automatically steer the interactions in such a way that all players remain engaged and physically active.



ICT science question

How can we best track the players and understand their interactive behavior? What kind of interactions are suitable at which moment during the play to maintain the engagement of players? How can players be motivated to adopt certain play styles such as cooperation or competition?

Application

Our work can eventually be combined into playgrounds that allow for adapted play without any restrictions such as the need to wear certain sensors. We see great potential for these playgrounds in open spaces such as traditional playgrounds, shopping malls, sporting facilities and outdoor squares.



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COMMIT/ project
IUALL Interaction for Universal Access

Alternative Application

Interactive play is everywhere. Not only children can benefit or enjoy interactive play. Previously, we made an ambient interactive bar that was successful in entertaining adults. The techniques, both for sensing and interaction, are largely the same. One can also think about offering play to people who normally have limited play opportunities, such as heavily handicapped or demented people. Interactive play might help in socializing, entertaining, triggering physical activity or even branding.

Nice to know

The behavior of adults and children while playing tag is largely the same. Except that children cheat more.

In 2008, the UK Local Government Association promoted tag games stating that children are over-protected ("wrapped in cotton wool"). [Wikipedia]

Variants of tag have fancy names such as "Cops and Robbers", "Kiss Chase" and "Ringolevio".

Quotes from participating students:

- "This looks so cool!! I want to play!"
- "I want to have this at home!"
- "This should be a new sport, Olympic"
- "I think this would fit very well in gyms or fairs"



An interactive whole-body game aimed at enhancing the player's fun, physical and social experience.



An interactive game environment that senses players' behavior to facilitate a physically active, social and engaging experience with multiple other players without prior calibration.



A novel game environment that mediates gameplay elements by sensing and tracking players to promote targeted behavior or improving the game experience.



Tracking and analysis of human behavior to create engaging gameplay.