Innovative Technology for Social Interaction: 
Design, Research Findings and Practical Implications 
(Workshop)

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Abstract
Participatory Design is a methodology in the field of User-Centered Design that mandates active involvement of users in the design process as a way of developing socially valid and sensitive systems (Bødker, 1996). Participatory Design involves end-users directly as design partners (Binder, 1996). End-users may be children who benefit from educational software as well as teachers, therapists and parents who use the software to help the child achieve specific educational and social goals. Participatory Design has been used successfully for the development of new technology for children including computer software, virtual environments and robotic interfaces (Druin, 2002). It makes use of a co-operative inquiry method wherein frequent design review sessions are held between technology developers, researchers and users. These sessions enable rapid idea generation and selection of priorities for the next iteration of technology development. Data collection methods such as usability questionnaires, peer tutoring, videotaped observations provide valuable insight into the technology’s feasibility, usability and effectiveness (Hanna et al., 1997; Höysniemi et al, 2003). Recently Participatory Design been used to examine a new technology—the Diamond Touch Table (DT). The DT is an interactive co-located table top device that has multi-touch capability of distinguishing who is touching it. It may be used with 2-4 users who act together in cooperation (Dietz & Leigh, 2001). Each user is identified as a separate entity and can operate the application using his fingers. This research tool was developed in the last years and examined with different populations including typically developing children and those with autism (Battocchi et al., 2008; Everitt et al., 2004; Gal et al., 2009; Kobourov et al., 2005; Zancanaro et al., 2006). The DT was shown to be effective in promoting social skills in a game-like setting.

The objectives of this workshop are to (1) review the theory underlying the participatory design process, (2) present an overview of the methods used to obtain and implement end user input, (3) provide examples of how this method has been used in the design and programming of educational
technology for children with autism and (4) to exhibit the resulting software via hands-on demonstrations.

The workshop is aimed at teachers, therapists, parents and school administrators who wish to become more informed about how technology and computer software can be made into more effective teaching tools for children with disabilities as well as those who are typically developing. The participants will have the opportunity to experience the DT as well as use a multiple mouse version of the same software.

מבוא

(Start with Hebrew, then continue in English.)

Participatory Design (Bødker, 1996). Participatory Design (Binder, 1996). Children can be made to work, educations matter to achieve, similar measures, and use of technology in the development of social — an interactive table, a Diamond Touch Table (DT).

Druin, 2002) (Hanna et al., 1997; Höysniemi et al., 2003). (Battocchi et al., 2008; Kobourrov et al., 2005; Zancanaro et al., 2006). The technology that creates and tests its interactivity is developed and examined in the recent years in different populations (Battocchi et al., 2008; Kobourrov et al., 2005; Zancanaro et al., 2006).

A simple and flexible way for children with autism and (4) to exhibit the resulting software via hands-on demonstrations.
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מתואף המסדה

(1) סקרירת החנויות וה🏆מודדות בבסיס תהליכים משותפים (2) חכלית השיווק וה ♥יצוג ♥שitty (3) מתן הطرفנים שלשם עובדת ובייעוץ תחנות ♥כוננות ♥יויכת
ל楯ל過程 משותף משותף (4) מתן הطرفנים משותף משותף

מקורות


Zancanaro, M., Lepri, B., and Pianesi, F. Automatic detection of group functional roles in face to face interactions. ICMI 2006, 28-34.