Registration Desk open 08:00 am - 05:00 pm MZH 1st Floor

Workshops June 12, 2012

Interactive Technologies for Children with Special Needs
Tuesday, June 13, 09:00 am MZH 1st Floor Room 1100
Organized by Meryl Alper, Shuli Gilutz, and Juan Pablo Hourcade

Position papers should address the design, use, and evaluation of interactive technologies for children with special needs. Possible topics include:
- Design methods
- Applying theories to design and evaluation
- Best practices
- Evaluation and impact assessment
- Designing for the abilities of children with multiple impairments
- Individualizing approaches and other methods to address individual differences
- Addressing maturation
- Engaging typically developing peers
- Complying with regulations and guidelines

The workshop will provide all participants an opportunity to present their work and ideas. From these presentations, participants will select emerging themes to discuss. There will also be time to plan for future collaborations, including the publication of workshop outcomes.

Digital Fabrication for Educational Contexts
Tuesday, June 13, 01:00 pm MZH 1st Floor Room 1110
Organized by Dennis Krannich, Bernd Robben and Sabrina Wilske

In this workshop we want to discuss the concept of digital fabrication and demonstrate how this novel and diverse approach can be applied for educational contexts. Participants will discover and discuss the possibilities and impact of different digital fabrication technologies. This workshop is intended for practitioners of digital fabrication as well as newbies. Position papers or demos (2-4 pages following the ACM submission format) should address the design, use, or evaluation of digital fabrication technologies for educational contexts. Papers must be related to digital fabrication and should cover one or more of the following topics:
- tools and technologies (3D printing, laser cutting, etc.)
- Educational concepts
- Experience design
- Open innovation
- Best practices
- Dissemination and establishment
- Local and social practices

Registration Desk/Town Hall opening 06:00 pm

Conference Welcome at Town Hall
Tuesday, June 12, 07:00 pm
Anja Stahmann, Senator of Welfare, Children, Youth and Women’s Affairs of the Free Hanseatic City of Bremen,
Prof. Dr. Heidi Schelhowe, Conference Chair, Digital Media in Education, Tzi, University of Bremen,
Prof. Panos Markopoulos, Director of Education, Department of Industrial Design, Eindhoven University of Technology

Doctoral Consortium
Tuesday, June 12, 09:00 am - 05:00 pm MZH 8th Floor Room 8090
Yasmin Kafai, University of Pennsylvania, Mike Eisenberg, University of Colorado at Boulder

Augmenting Imagination for Children with Autism Zhen Bai
Creating Physically Active Games for Young Adolescents Remi Bec
Designing for Emergent Play Linda de Valk
Developing Adaptive Exergames for Adolescent Children Andrew Macvean
Supporting Non-Formal Learning Through Co-design of Social Games With Children Diego Alvarado
The Choreography of Conceptual Development in Computer Supported Instructional Environments Timothy Charoenying
Towards a Socially Adaptive Digital Playground Robby van Delden
Waiting for Learning: Designing Interactive Educational Materials for Patient Waiting Areas Zeina Leong
Registration Desk open 08:00 am - 06:00 pm MZH 1st Floor

Conference Opening
Wednesday, June 13, 09:00 am MZH 1st Floor Room 1380/1400
Prof. Dr. Heidi Schelhowe, Vice President, University of Bremen

Opening Keynote:
Exploring the world with the mouse
Wednesday, June 13, 09:00 am - 10:30 am MZH 1st Floor Room 1380/1400
Matthias Körnich, Commissioning Editor at WDR (German public TV) - Children and Family Programs

For over 40 years now the „Show with the Mouse“ is one of the most successful children’s programmes in Germany. With its mixture of cartoons, practical and educational elements, its combination of fictional and factual stories, the „Show with the Mouse“ has secured its position as a strong brand, generating solely positive sentiments and thus becoming a symbol for a creative procurement of knowledge. Due to its easy to follow factual elements, „Ask the Mouse!“ has become a catchphrase, whenever a clever answer is needed.

Probably one of the most important reasons for this phenomenal success is the fact that the show has never tried to follow any didactic concept, but has always carefully considered nothing but the needs and interests of its audience. This is exactly why, although they are separated in age by more than four decades, the concept of the „Show with the Mouse“ is so close to the concept of the iPad: Both consistently take merely their users’ needs into consideration and thereby allow them an intuitive use of their devices: The iPad, on the one hand, is a very direct and haptic gadget, which allows effortless access to the internet and world of computers; this is what makes it so ideal for children. On the other hand, the stories, which we tell in the „Show with the Mouse“, are also coined by an unconventional, intuitive approach to the world; this is their characteristic way of decoding reality. Both, the iPad and the „Show with the Mouse“ choose a purely explicable approach: solely their user’s „inner child“ determines the point of view and focus of attention.

Since the very first episode of the „Show with the Mouse“, its production-team has never asked what they ought to explain to their audience; instead their leading question has always been what the children themselves prefer to watch. The unanticipated answer was: commercials. In other words: films, which entertain, are high-quality-productions and always bring across their message seemingly effortless. Creating „commercials for reality“ was - and still is? therefore the intention of the factual films featured in the „Show with the Mouse“: Because appreciating discoveries and asking questions means excitement; because the mouse as a character is curious and wants to make other people curious about the world. This distinctive point of view is what makes the factual stories of the show so unique. Learning how to ask questions and weave their answers into captivating storylines is mandatory for this approach. It still remains our firm, self-imposed standard, which stays the same, even when the show keeps re-inventing itself all the time to be up to date with an ever-changing reality. Its focus and foundation is never any didactic plan, but to stimulate curiosity, to induce the pleasure to explore and to play around. This is how questions like „Why is the sky blue?“, „How do stripes fit into toothpaste?“ and „Why are manholes round?“ find their way into the show: they are interesting and taken from everyday-life at the same time. They are instantly gripping and every step on the way develop into an even more exciting episode. This is what makes the „Show with the Mouse“ more authentic than other shows of its type, which, for example, feature a cartoon-frog trying to teach maths: Everyone notices their intention right away and is dispassionate. Finally, this unique explorative approach of the „Show with the Mouse“ is mirrored in its website which also has a high usability and user experience. „Discover the world with the mouse!“ , this is not only our established slogan for the TV show but now also a concept, which we have just started to implement online.

Session 1: Designing with Children
Wednesday, June 13, 11:00 am - 12:30 pm MZH 1st Floor Room 1380/1400
Tilde Bekker, Eindhoven University of Technology, Jochen Rick, Saarland University

Supporting the Design Contributions of Children with Autism Spectrum Conditions
Christopher Frauenberger, Judith Good, Alyssa Alcorn and Helen Pain

Scandinavian Participatory Design - Dialogic Curation with Teenagers
Ole Sejer Iversen and Rachel Charlotte Smith

DisCo: a Co-design Tool for Online, Asynchronous Distributed Child and Adult Design Patterns
Greg Walsh, Allison Druin, Mona Leigh Guha, Elizabeth Bonsignore, Elizabeth Foss, Jason Yip, Evan Golub, Tamara Clegg, Quincy Brown, Robin Brewer, Asmi Joshi, Richelle Brown
Session 2: Experience Systems
Wednesday, June 13, 01:30 pm - 03:00 pm MZH 1st Floor Room 1380/1400
Greg Walsh, University of Maryland, Jochen Rick, Saarland University

Revive! Reactions to Migration between Different Embodiments when Playing with Robotic Pets
Elena Marquez Segura, Henriette Cramer, Paulo F. Gomes, Stina Nylander and Ana Paiva

Technology for Promoting Scientific Practice and Personal Meaning in Life-Relevant Learning
Tamara Clegg, Elizabeth Bonsignore, Jason Yip, Helene Gelderblom, Alex Kuhn, Tobin Valenstein and Allison Druin

Exploring Children’s “Indexical Encounter” with Real and Digitised Archive Photographs Using Tablet and Large Flat Screen Technologies
Susan Jane Jones, Lynne Hall and Janette Hilton

Short Paper Poster Session
Wednesday, June 13, 03:30 pm - 06:00 pm MZH 1st Floor Room 1380/1400
Franca Garzotto, Politecnico di Milano, Timo Göttel, Innovationsagentur Berlin

A Networked Suite of Mixed-Technology Robotic Artifacts for Advancing Literacy in Children
George Schafer, Keith Green, Ian Walker and Elise Lewis

BeSound: Embodied Reflexion for Music Education in Childhood
Guillaume Sole, Giovanna Varni, Barbara Mazzarino and Anna Rita Addessi

Building Examples: Media and Learning Affordances
Tiffany Tseng and Mitchel Resnick

Characters as Agents for the Co-Design process
Catherine Grundy, Lyn Pemberton and Richard Morris

Children's Web Search with Google: The Effectiveness of Natural Language Queries
Yvonne Kammerer and Maja Bohnacker

Creative Access to Technology: Building Sounding Artifacts with Children
Christoph Trappe

Design Challenges and Concept for Intergenerational Online Learning
Verena Fuchsberger, Julia Nebauer, Christiane Moser and Manfred Tscheligi

Designing Digital Media for Teen-Aged Apprentices: A Participatory Approach
Eva-Sophie Katterfeldt, Anja Zeising and Heidi Schelhowe

Designing Textual Password Systems for Children
Janet Read and Brenda Cassidy

Development and Evaluation of Fingur: A Mathematics iPad Game Using Multi-touch Interaction
Wolmet Barendregt, Béatrice Lindström, Elisabeth Rietz Leppänen, Ingemar Holgersson and Torgny Ottosson

Development of Intelligent Play Practice for Trampolines
Helle Skovbjerg Karoff, Lars Elbæk and Sigrid Rytz Hansen

Digitally Augmenting the Flannel Board
Maria Medeiros, Pedro Branco and Clara Coutinho

Evaluation of the Puppet Theater Based on Inclusive Design Method: A Case Study of Fourth-year Elementary School Students With Normal Hearing
Ryohei Egusa, Kumiko Wada, Miki Namatame, Fusako Kusunoki, Hiroshi Mizoguchi and Shigenori Inagaki

From Tools to Communities: Designs to Support Online Creative Collaboration in Scratch
Ricarose Roque, Yasmin Kafai and Deborah Fields

Group Interaction on Interactive Multi-touch Tables by Children in India
Izdiham Jamiil, Mark Perry, Kenton O’Hara, Abhijit Karnik, Mark T Marshall, Swathi Jha, Sanjay Gupta and Sriman Subramanian

Growing Up with Nell: A Narrative Interface for Literacy
C. Scott Ananian, Chris J. Ball, Michael Stone

Ilha Musical: A CAVE for Nurturing Cultural Appreciation
António Gomes, Hyun Joo Oh, Yoram Chisik and Monchu Chen

Independent Exploration With Tangibles for Students With Intellectual Disabilities
Taciana Pontual Falcao and Sara Price

Interactive Applications for Children With Hearing Impairments: a Process of Inspiration, Ideation, and Conceptualization
Pieter Duysburgh, Karin Slegers and An Jacobs

Material Pets, Virtual Spaces, Isolated Designers: How Collaboration May Be Unintentionally Constrained in the Design of Tangible Computational Crafts
Maneksha Dumont and Victor R. Lee

Math on a Sphere: Using Public Displays to Support Children’s Creativity and Computational Thinking on 3D Surfaces
Sherry Hsi and Michael Eisenberg

Parents and Children Having and Using Technology - What Should We Ask?
Matthew Horton and Janet C Read
Participatory Design for Exertion Interfaces for Children
Pascal Landry, Narcis Parés, Roc Parés and Joseph Minsky

Robotic Companion for Diabetic Children
Marco Nalin, Ilaria Baroni, Alberto Sanna and Clara Pozzi

Standing on the Shoulders of Their Peers: Success Factors for Massive Cooperation Among Children
Creating Open Source Animations and Games on Their Smartphones
Tobias Gritschacher and Wolfgang Slany

Time-Me: Helping Children Understand Time
Azmina Karimi, Beth Liang, Andrew Nip, Saba Nowroozi and Celeste Pang

Understanding Reading Experience to Inform the Design of eBooks for Children
Luca Colombo, Monica Landoni and Elisa Rubegni

Using Children’s Drawings to Elicit Feedback on Interactive Museum Prototypes
Emma Nico and Eva Hornecker

v-Penglipur Lara: The Development of a Pedagogical Agent in Malaysian Folktales Land
Masyarah Zulhaida Masmuzidin and Taoran Wan

What Makes Competitions Fun to Participate? The Role of Audience for Middle School Youth Game Designers
Yasmin Kafai, Quinn Burke and Chad Mote

You Have to Die! Parents and Children Playing Cooperative Games
Wolmet Barendregt

Conference Dinner at „Bremer Ratskeller“
Wednesday, June 13, 07:00 pm
Am Markt 28195 Bremen 0421 321676
Prof. Dr. Yasemin Karakaşoglu, Vice President for Intercultural and International Affairs
Registration Desk open 08:00 am - 06:00 pm MZH 1st Floor

Session 3: Design and Learning Contexts
Thursday, June 14, 09:00 am - 10:30 am MZH 1st Floor Room 1380/1400
Greg Walsh, University of Maryland, Jochen Rick, Saarland University

Embedding Technology in the Classroom: the Train-the-Teacher Model
Judy Robertson, Andrew Macvean and Katy Howland
Family and Design in the CHI and IDC Communities Sara Isola and Jerry Fails
Fostering Early Literacy Skills in Children's Libraries: Opportunities for Embodied Cognition and Tangible Technologies Camilla Jensen, Winslow Burleson and John Sadauskas

Session 4: Interactive Technology for Algorithmic Thinking
Thursday, June 14, 11:00 am - 12:30 pm MZH 1st Floor Room 1380/1400
Greg Walsh, University of Maryland, Jochen Rick, Saarland University

Learning Kinematics in Elementary Grades Using Agent-based Computational Modeling: a Visual Programming-based Approach Pratim Sengupta and Amy Farris
Robo-Blocks: Designing Debugging Abilities in a Tangible Programming System for Early Primary School Children Arnar Sipitakiat and Nussarin Nusen
Tangicons 3.0: an Educational Non-Competitive Collaborative Game Florian Scharf, Thomas Winkler, Claudia Hahn, Christian Wolters and Michael Herczeg

Session 5: Learning through Embodiment
Thursday, June 14, 01:30 pm - 03:00 pm MZH 1st Floor Room 1380/1400
Greg Walsh, University of Maryland, Jochen Rick, Saarland University

Sciensations: Making Sense of Science by Designing with Sensors Katja Grufberg and Martin Impact of Embodied Interaction on Learning Processes: Design and Analysis of an Educational Application Based on Physical Activity Laura Malinverni, Narcís Parés and Brenda López Silva The Choreography of Conceptual Development in Computer Supported Instructional Environments Timothy Charoenying, Alex Gaysinsky and Kimiko Ryokai

Welcome at German Emigration Center
Thursday, June 14, 05:00 pm - 06:30 pm (shuttle bus service at 04:00)

Directorate of the German Emigration Center
Keynote: Beyond Wild Dreams and High-Tech Fetishes: Learning about Media from Children in the Global South, Dr. Shakuntala Banaji, London School of Economics and Political Science, Department of Media and Communications
Keynote:
Beyond Wild Dreams and High-Tech Fetishes: Learning about Media from Children in the Global South

Thursday, June 14, 05:00 pm - 06:30 pm German Emigration Center
Dr. Shakuntala Banaji, London School of Economics and Political Science, Department of Media and Communications

The world of research into children, young people, media and technology is often over-simplified via a series of binaries: techno-optimists versus techno-pessimists; design versus meaning; innovation versus risk; pedagogic versus leisure uses; and, of course, children on the one hand, adults on the other. In some projects educational designers and pedagogues call on insights from game design to attempt to make civic participation more appealing to children and youth or use social networking tools in managed virtual learning environments apparently to bring the worlds of school and home closer together. In other circumstances, technology companies team up with development organisations to promise parents and children in the global south the economic benefits of an innovative education if only particular combinations of broadband and mobile learning are employed. However, ethnographic and case-study based qualitative research about media, technology and learning with children, young people and teachers in both the developing and developed world suggests that many of these initiatives are painfully ignorant of the everyday realities both across non-urban areas in the developing world and across vast swathes of formal schooling in the developed world. In fact, fetishising digital design and technological tools at the expense of critical work on social contexts of leisure and learning, representation, political economy and children’s meaning-making is entrenching age-old divides of wealth, access, power and control, particularly for the world’s poorest children. Calling on research from a series of funded and unfunded research projects over the past decade in Europe and India, this paper will problematise some resilient theorisations of children, learning and technology, as well as the insights and agendas to be gained from a reflexive and integrated approach to meaning, media, design and sociocultural context.

Some images from workshops at University of Bremen
Registration Desk open 08:00 am - 12:30 pm

Demonstration Sessions
Friday, June 15, 09:00 am - 10:30 am MZH 1st Floor Room 1100/1110
Janet Read, University of Central Lancashire, Thomas Winkler, University of Lübeck

An Interactive Exploration System that Visually Supports Learning of Country Features
Tomoko Kajiyama and Shin’Ichi Satoh

Bifocal Modeling: Combining Real and Virtual Models for Science Learning in a School Setting
Paulo Blikstein, Daniel Greene, Tamar Furhmann and Shima Salehi

Catroid: A Mobile Visual Programming System for Children
Wolfgang Slany

Designing a Community to Support Long-term Interest in Programming for Middle School Children
Kyle Harms, Jordana Kerr, Alexis Chuck, Michelle Ichinco, Tarian Koscik, Mark Santolucito, Caitlin Kelleher

Designing the Anti-Heuristic Game: A Game Which Violates Heuristics
Gavin Sim

Improving on a Physics-Based Programming System for Children
Robert Sheehan, Ducksan Cho and Joon Ha Park

Proportion: A Tablet App for Collaborative Learning
Jochen Rick

Re·play: A Self-Documenting Construction Kit
Tiffany Tseng, Robert Hemsley and Mitchel Resnick

t-books - Merging Traditional Storybooks with Electronics
Cristina Sylla, Sérgio Gonçalves, Paulo Brito, Pedro Branco and Clara Coutinho

Session 6: Digital Story Telling
Friday, June 15, 11:00 am - 12:30 pm MZH 1st Floor Room 1380/1400
Paulo Blikstein, Stanford University, Jochen Rick, Saarland University

CASTOR: Learning to Create Context-Sensitive and Emotionally Engaging Narrations In-Situ
Fabio Pittarello and Luca Bertani

Story Faces: Pretend-Play with Ebooks to Support Social-Emotional Storytelling
Kimiko Ryokai, Hayes Raffle and Robert Kowalski

Evaluation Investigation Children’s Opinions of Games: Fun Toolkit vs. This or That
Gavin Sim and Matthew Horton

Panel
Friday, June 15, 01:30 pm - 03:00 pm MZH 1st Floor Room 1380/1400

Moderator: Franca Garzotto, Short Paper Co-Chair, Associate Professor of Computer Engineering at the Department of Electronics and Information, Politecnico di Milano
Nitin Sawhney, Ph.D. Assistant Professor of Media Studies, The New School for Public Engagement, New York
Roger Meintjes, Researcher, University of Bremen
Dr. Shakuntala Banaji, London School of Economics and Political Science, Department of Media and Communications
Juan Pablo Hourcade, Assistant Professor at the University of Iowa’s Department of Computer Science and a member of the Delta Center

Closing Plenary and Invitation to IDC 2013
Friday, June 15, 04:00 pm MZH 1st Floor Room 1380/1400