Lecture Series
Winter Term 2016/2017

SFB-TRR 161
Quantitative Methods for Visual Computing

The Transregional Collaborative Research Center (SFB-TRR) 161 invites all colleagues and interested people to the upcoming Lecture Series. During these events renowned scientists will talk about their research findings in the field of visual computing.

Visual Computing

Invitation to a talk
within the SFB-TRR 161 Lecture Series

17-10-2016 4:00 pm

University of Stuttgart
VISUS, Allmandring 19,
Vaihingen, Powerwall Room

Live Transmission to Konstanz

Celine Coutrix

Laboratoire d'Informatique de Grenoble &
Visiting scientist at Human Computer Interaction Group in Stuttgart

Physically flexible control for Human-Computer Interaction

In Human-Computer Interaction (HCI), since their early, introducing works, physical and tangible user interfaces (TUIs) like, e.g., physical buttons, sliders or dials/knobs, etc. have been often proved more efficient as they provide directness, passive haptic feedback, specialization of control, etc. For these reasons, they have been widely studied in research, but also used in real applications for a long time like interactive data visualization, sound or light mixing, cinema, etc. However, the success of TUIs has been limited to these very demanding application domains, where their benefits are crucial for users who operate eyes-free and need passive haptic feedback.

Outside these application domains, GUIs have taken over. Their success can be explained by both the directness of interaction and the flexibility provided through software. As an example of GUI flexibility, direct touch, or the cursor of the mouse, can be associated to a different tool whether it activates a button, a scrollbar or a piece of text in an editor. TUIs lack the flexibility necessary to scale to a large spectrum of users, tasks and applications and have been left apart to the benefit of the mouse and multitouch interfaces. We hypothesize that this lack of flexibility is preventing the wide adoption of TUIs for the benefit of the general public.

This talk will present early exploration of this hypothesis, and how providing the flexibility of control through physical shape-change could reshape the User Interfaces of tomorrow.

Lecture Series
Winter Term 2016/2017

SFB-TRR 161
Quantitative Methods for Visual Computing

About the speaker

- Visiting researcher in the human-computer interaction research group at the University of Stuttgart, in Germany, since January 2016
- CNRS researcher at Laboratoire d'Informatique de Grenoble, Engineering of Human-Computer Interaction Group in Grenoble, France, since 2010
- External researcher at École Nationale Supérieure des Arts Décoratifs, Interactive installations Research Group in Paris, France, since 2010
- Post-Doctoral Researcher at Helsinki Institute for Information Technology, Ubiquitous Interaction Group in Helsinki, Finland, from 2009 to 2010
- Research Student in Interactive Arts at École Nationale Supérieure des Arts Décoratifs, Interactive installations Research Group in Paris, France, from 2007 to 2010
- Ph.D. student in Computer Science at Université Joseph Fourier and Laboratoire d'Informatique de Grenoble, Engineering of Human-Computer Interaction Group in Grenoble, France, from 2005 to 2009
- Assistant Lecturer in Computer Science at Université Pierre Mendès-France in Grenoble, France, from 2005 to 2008
- Intern at Media Lab Europe, Human Connectedness Group in Dublin, Irland, in 2004

See http://iihm.imag.fr/coutrix/ for more details.