A sandbox metaphor for controlling users in shared interaction environments

Abstract: A simple and natural interaction is considered the most important feature of an interface for multiple impromptu users in public spaces. Intuitiveness and forthright feedback are key factors to enable a steep learning curve for untrained users that need to grasp the interaction model in a short time span. The lack of proper constraints, designed to restrict and guide the user actions, might hinder such intuitiveness, mainly when the number of users grows or their behavior is exceedingly unrestrained.

In this talk we are introducing the idea of sandboxed interaction, a metaphor that groups many flavors of physical and software-based measures aiming at guaranteeing a smooth and fitting interaction. We discuss different types of sandboxes suitable to handle different kinds of interaction problems, and present the outcomes of a case study where several sandboxing measures have been put into use and evaluated in the context of an interactive multimedia installation in an art exhibition.

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Bio: Augusto Celentano is full professor of Information processing systems at Ca' Foscari University in Venice, Italy. He received a Master Degree in Electronic Engineering from Politecnico di Milano in 1973. He has been Deputy Rector for information technology and Head of the Department of Computer Science of Ca' Foscari University. Augusto Celentano has been member of scientific committees in research and educational centers of Politecnico di Milano and Ca' Foscari University, and has been consultant in research projects of the European Union. He has been invited professor at INSA de Lyon, France, and Université Paul Sabatier, Toulouse, France. His current research interests are in interactive multimedia systems, Human Computer Interaction, Digital Humanities and ICT systems for Cultural Heritage preservation and dissemination. In this area he has contributed to the development of mobile multimedia guides for a series of art exhibitions held at Ca’ Foscari, in the context of a research project on novel systems for art fruition.