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Claudio Pinhanez

"In most video games and interactive installations, the action happens on what I believe is the wrong side of the screen: inside the computer graphics world. In my view, this is an unnecessary impoverishment of the experience, depriving users, and especially children, of opportunities for physical and social interaction with the real world and with real people. My work has been focused on how to create physical spaces where people can meet and play with computer graphics characters, objects, and landscapes in a real, physical space. Instead of virtual reality, I am trying to make fantasy more real.

"Through examples, I will show that some interaction technologies based on perceptual computing and tangible media are already providing the tools to build such interactive, immersive physical spaces. For instance, in 'The KidsRoom,' built in 1996, we used computer vision to track children and recognize dance steps in a complex narrative happening inside a real children's room. In 'It/I,' a computer theater play, I employed a stereo camera system to track an actor on stage and control his interaction with a computer graphics character.

"My research has convinced me that interactive stories, especially in physical spaces, should not be based on choice mechanisms but instead on exploration of local 'pockets' of interaction that do not disrupt the suspension of disbelief. Also, I contend that to achieve immersion in physical interactive spaces it is not necessary to resort to cumbersome devices like 3D goggles or highly artificial spaces like the CAVE. Instead, people can be entranced by carefully designed and produced stories and characters that, coupled with the right amount of unencumbered interactivity, respond to the user in the appropriate context."

Claudio Pinhanez is a media artist and computer scientist. Born in Brazil, he received his PhD in 1999 from the MIT Media Laboratory, where he conducted research on computer vision and artificial intelligence, and created and produced computerized performances. His work aims to create interactive spaces where users and performers can experience complex narratives while interacting with computerized actors. He coined the term "computer theater" in 1996 to describe the new and emerging experiences involving computers in theater, and since then he has been actively creating live performances inhabited by computer-controlled actors. He is also a member of the team that created the original prototype of "The KidsRoom," an interactive, immersive environment for children currently running in the Millennium Dome in England. He has also been a visiting researcher at ATR Laboratories (Kyoto, Japan) and the Sony Computer Science Laboratory (Tokyo, Japan), where he developed the "HyperMask" project presented in SIGGRAPH 99's Emerging Technologies. He is currently a research scientist at IBM T.J. Watson Research Center in New York.

Naoko Tosa

Naoko Tosa is a media artist and researcher in the ATR MIC Laboratories. She received PhD in art and technology research from the University of Tokyo, where she focused communication and used computers and electronics to create artwork that relates to the intelligence of emotions, consciousness, and unconsciousness. She specializes in creation of interactive art. Her best-known is was the Neuro-Baby project. Her work has been exhibited at the Museum of Modern Art, New York; the New York Metropolitan Art Museum; the annual SIGGRAPH conference; ARS Electronica; the Long Beach Museum; and other locations worldwide. Her works are also included in the collections of the American Film Association and 10 Japanese Art Museums.

From "Interactive Theater," ATR MIC Laboratories, 1998 .
Photo by Naoko Tosa and Ryohei Nakatsu