

Remote Furniture: Interactive Art Installation for Public Space

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1 Overview and Concept

In this interactive public art project, two computer-controlled rocking chairs are installed on the floor facing each other. When two people sit in the chairs and rock, the chairs create an experience of communication in direct and tactile touch.

Remote Furniture was designed to create unexpected encounters between passersby in public spaces.

Unlike Western cultures, people in Japan do not usually talk to people they meet in public spaces such as plazas or major streets. Although there are many public spaces in Japan, many built in post-war styles, Japanese do not have a tradition of actively using these spaces. We are still trying to adapt traditional attitudes toward space to those "imported" from other cultures.

2 Interactive Artwork in Public Space

This work has been modified several times since 1999. The concept has remained the same: How can we connect people in public spaces using interactive art and digital interfaces? But based on this concept, the work has evolved as technology advances.

This kind of interactive, haptic interface is easy to discuss from an engineering viewpoint. But how such technology can affect everyday life has not been well examined. Remote Furniture focuses attention on this area.

It was interesting to see what happened when Remote Furniture was installed in some Japanese public spaces, such as an underground passage or an indoor shopping mall. Because the objects were chairs, passersby became curious about them and eventually started sitting on them, rocking them, and playing with them. And when people realized what was going on between the chairs, they began communicating with each other in funny and tactile ways.

More conservative means of communication, such as talking and gesturing, became more available in public because the chairs allowed them to face each as they do in familiar situations (for example, when they talk over a coffee table in a cafe or a kitchen table at home).

Some people even tried to develop ways of playing through this means of communication. Remote Furniture seemed to help remove shyness in public spaces. It reveals the unseen potential of

public spaces and provides an experience of communicating to people who have not experienced it before. This can be the potential of interactive art in public space.

3 Innovations

The two chairs have a tilt sensor and a linear motor, and are connected to a PC running control software. When someone rocks one of the chairs, the tilt sensor detects the inclination and transmits the data to the other chair through the PC. The motor in the other chair then causes it to rock. Usually this kind of remote interaction is designed with a master-slave (one-way) method. But in Remote Furniture, full duplex (two-way) interaction is realized, because it feels more natural.

4 Future Potential

For the current version, modified rocking chairs were enhanced with a sensor and an embedded motor. The next step will be to connect more than two chairs to create shared experience (in this way, the experience turned to be more than a dialogue) and to connect two or three chairs through the Internet, so that participants in different locations can interact with each other over long distances.

5 References

For more information: <http://www.andrew.cmu.edu/user/noriyuki/artworks/remotefurniture/index.html>



Figure 1: A photo from exhibition "Public Communication Sculpture" Yokohama Queen's mall, 1999

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