

Geminoid(Teleoperated Android)

(ATR Intelligent Robotics and Communication Laboratories, Osaka University)

Our research focuses on the “presence” (the feeling of human existence beside us). Where does the feeling of human presence come from? Can we transfer or reproduce the human presence by technology? To answer this question, we conduct our study through development of various androids.



Geminoid

Internet



Operator

- We can transfer the feeling of presence from a distant location
- The android can be easily operated by anyone.
- We can operate the android from anywhere in the world using internet



Geminoid HI-1 modeled from Prof. Ishiguro



Geminoid F modeled from a real woman

Transmission of presence to remote places

By using Geminoid, we can make a distant person feel our presence and have a more natural interaction with him. In this study, we work on the basic design and implementation of such interface. In addition, we use Geminoid to run experiments to identify the essential elements for conveying the sense of presence.



Transfer of body sensations to remote places

During operation, when the Geminoid is touched, some operators may feel as if they themselves were touched. This phenomenon, which is called Transfer of Bodily Sensations, is given attention in neuroscience and regarded as a measure of natural tele-operation in the Geminoid development. In this research, we study the conditions in which the transfer of bodily sensations happens.



Minimum design that conveys the feeling of presence



Telenoid R1

Telenoid R1 was made as a minimal design of human being, in other words, a robot that can look like any human. We are currently investigating the effectiveness of using Telenoid R1 to project human presence.. In addition, we are considering its applications as a remote tool of human mental support in places such as elderly house or home care,



Does it look like a grandchild?