Title	
Author(s)	,
Citation	
Issue Date	2010-03
Type	Thesis or Dissertation
Text version	author
URL	http://hdl.handle.net/10119/8915
Rights	
Description	Supervisor: , ,

Recently, various communication tools using a computer and/or a cellular phone have been developed along with the spread of the Internet, which allows remote communications. However, the remote communications are not still insufficient. One of the problems is that it is difficult to grasp conversation situations of the remote places because of lacking of non-verbal information. To solve this problem, it has been attempted to transmit some non-verbal information such as the face mark like smiley in the communication so far. However, it is not enough to grasp only the partner's conversation situations during a conversation; it is also important to grasp his/her daily life conditions. It is actually very difficult to share such background information in the remote communications and people cannot help but communicating without grasping the partner's mental states, which often causes mutual misunderstandings. It would become possible to reduce such troubles if the shortage of the information could be compensated. Unfortunately, however, there have been no means to obtain and to convey the mental situations when they do not communicate.

The objective of this research is to build a novel communication medium that conveys the mental conditions of the partner that is obtained when they do not communicate for supporting long-distance love. The author paid attention to the variations of breathing as one of the information for assuming the mental states. It is known that the mental states and the variations of breathing closely relate. Therefore, it is possible to naturally and unconsciously acquire the partner's mental conditions by capturing the variations of breathing. In this thesis, I attempted to convey mental-condition-awareness information that is lacking in the remote communications by acquiring and conveying the variations of breathing, and evaluated the effectiveness of the method.

The system named "HAAHAA (Humor Awareness Acquainting Harness by Abstracting Aspiration data)" that I constructed obtains breathing data from a breast-worn sensor, calculate the variation information of breathing by comparing breathing of a certain day with the usual breathing, and transmit it. The variation information of breathing can become information with which a user assumes his/her partner's mental states.

I conducted several experiments using some subjects. The obtained findings and results are as follows:

・ It was possible assume the subjects' mental states under a specific condition to a certain extent from the variation information of the breathing although it is difficult to accurately distinguish the subjects' mental states.

・ It became possible to assume the partner's mental states intuitively to a certain extent

by seeing the variation information of breathing from the results of the questionnaire for the woman subjects in the evaluation experiment.

・ They worried the partner's life situations by seeing the variation information of breathing.

Thus, I confirmed that the variation information of breathing can become a new clue for assuming the remote partner's mental states and life situations.