

Title	共有インフォーマル空間におけるコミュニケーションを触発するメディアの開発と評価 - 言い訳オブジェクトの提案と利用 -
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A Study of Communication-catalysing Media in a Shared Informal Space.

- Finding and Using “ Justification Object ” -

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The importance of informal communication is well recognized in recent years. Informal network and informal communication in an organization serve as an indispensable element for attaining the target of the organization harmonizing with the formal activities there. Most researches of informal communication support so far have inclined to researches of awareness support in a distributed environment due to the fact that multi-site offices are expanding widely. However, it is also important to study how to activate communications in an informal shared space such as a tearoom or lounge because we often obtain valuable information and good ideas through the communication in relaxing and natural atmosphere.

In this research, we develop and evaluate a system called “IRORI” that is effective to “catalyze” communication in a shared informal space (or the base of informal communication in an organization). In developing the system, it is most important to consider how to support such communication without violating relaxing and natural atmosphere. Therefore we took three phases approach: observation experiment, implementation, and evaluation phases.

In the first phase we carried out observation experiments to know how the informal communication occurs and which triggers are important for activating the communication. As the result of the experiments we found the following relationships between physical objects and participants behavior:

- (1) When approaching a table, it is checking who is in surroundings of the table. After

that, conversation starts soon.

- (2) After approaching a table, begin with touching an object on a table. And conversation starts about the object or conversation starts gradually with touching the object.
- (3) When approaching a table, it is checking that “object with contents” or “appearance of people are touching the object”. After state which does not have conversation with gazing at it, conversation starts gradually.

From the above relationships, it is suggested that the existence of physical objects gives participants reasons justifying “go there” and “stay there”. These effects are called “Justification Object Effects (JOE)” in the paper.

In the second phase JOE is broken down as the following functions of the system:

- (1) The interface function in that a direct hand can describe
- (2) The function that induces search of the contents dynamically generated in 3D space.
- (3) The function that contents are offered when a user touches.

These functions are implemented as the “IRORI” system.

In the third phase, evaluation experiments are carried out as follows.

- (1) Three experimental environments are prepared: (a) a table and nothing on it, (b) a table and newspaper insertion flier on it, and (c) “IRORI” environment.
- (2) Video photography of five sessions (three subjects in each session)
- (3) A subject replies to a questionnaire, looking at video.

By the questionnaire, The evaluation value has been acquired with four parameters for every fixed time: (a) interest level of conversation, (b) interest level of a look, (c) interest level of an object, and (d) snugness. The following two suggestions were mainly obtained from analysis of these values.

- (1) In the discourse in a table, correlation is between “interest level of conversation” and “snugness”. Only in “IRORI”, this correlation has collapsed and “snugness” is changing to the stably good evaluation value.
- (2) “IRORI” gives the snugness more in comparison with a table on that newspaper insertion flier was placed.

These have suggested having the effect that “IRORI” catalyze to communication. Therefore, it can contribute also as a key for formalizing the intellectual trigger in informal communication.