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Supporting Formation of Network Community with Weak Ties

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A modern society is formed in home and company. Home is the society by the blood relative and the ground relation. Company is the society by the company relation. Now, a new society has occurred between both societies. It is the society with the information relation that is the relation with a common interests and concerns.

A new society differs from others because it has the characteristic that chooses relation personally. It is the relation of weak ties. The style of the ultimate of this society is pointed out with a network community. Because it is not restricted in time and place only or even the contact is not necessary. Its main tool is Mailing List, NetNews and BBS. We must exchange the message that fit the theme there. As the person who transmits the message must divide the character of oneself, the receiver of the message is difficult to understand him/her. To transmit an appropriate message we must be grasping the flow of the conversation. The situation, which always must be related with the community, is a stress to us.

In this research, we offer the place where the network community is formed by WWW communication as CMC(Computer-Mediated Communication). WWW communication has the characteristic of weak ties. Therefore, we suppose that this has the effect that supports the formation of network community with weak ties.

First, to study the actual situation of the network community by WWW communication, we explain the system of GeoCities and WebRing. Then we compared these systems from the life cycle of a community as follows.

- 1 In occurrence period of a community, users request the easy participation to the community. Therefore, GeoCities is superior because its users are able to participate just presenting URL of them site.
- 1 In growing period of a community, users request a frequent information exchange. Therefore, WebRing is superior because its users are able to move directly from WWW site to WWW site.
- 1 In prosperity period of a community, users want to make a rule of the community. However, even which system does not have a sufficient function.

Based on the above discussion, we proposed the "Shell model". This model has both of advantages. It generates the Hypertext corresponding to the WWW site into the community server and forms the community by causing it connected each other with Hyperlink. Users download the Hypertext that was covered as the shell, not the WWW site. This is the feature of "Shell model".

Next, we designed the system with the method that the Hypertext in this model is composed with HTML Frames. And the following functions were added.

- 1 The site of multiple communities: The purpose of this is the movement to other communities. The system makes the WWW site of users the point of contact of communities.
- 1 Function that browses the WWW site automatically: The purpose of this is easier WWW site browsing. The site of the community is displayed in order every the specified time.
- 1 Function that evaluates the WWW site: The purpose of this is support to make a rule in the community. All the participants of the community are able to evaluate the site. The system replaces the site in the order of its value.

We developed this system as network community formation support system TSUNAMI .

Last, we evaluated the operability of the function that browses WWW sites and the function that evaluates the WWW site. The following results were obtained.

1. In comparison with WebRing, TSUNAMI browsed a series of WWW site easily and

fast.

2. By the function that evaluates the WWW site, the intention of the participant was reflected on the constitution of the community. But, it was hardly used.

No.2 is insufficient the support to make a rule in the community. This is a future research subject.