Examining the collaborative process of network organizations: A case of electronic communication in civic media network -

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The purpose of this study is to understand the process in which socially useful artifacts or activities are produced through collaborative efforts in network organizations.

Recently, ICT (Information and Communication Technology) is rapidly spreading as a platform of various activities in network organizations. Those activities have been providing a big influence on social practices such as politics, business, and social welfare. This research aims to analyze not only ways people exchange and share their interest and concern with ICT within organization, but also the developmental process of the collaboration where members of the organization propose new ideas, assign roles, assist each other, and produce socially significant results. The final goal of this research is to offer some implications for establishing the appropriate methodology to start, develop, and sustain the network organization. This paper discusses the result of the investigation concerning the process of collaboration in network organizations, which serves as a preliminary finding for achieving the final goal.

In the author's previous research, he analyzed the discussion logs on electronic bulletin board systems for twelve online communities. As the result of the qualitative content analysis among the discussion logs, concept of three developmental stages of network organizations emerged from the data that captured people's mutual interaction on the internet These included (1) "sending-obtaining information" stage, in which participants simply send or obtain the information about trifling topics among members; (2)"community of interest (CoI)" stage, in which people exchange the information to share their interest and concern; and (3) "community of practice (CoP)" stage, in which the participants have utilized ICT for conversation means for their social practice in real world. These stages appeared in the sequential order starting from sending-obtaining information followed by CoI and CoP stages.

As described above, the objective of this study is to understand the process of collaboration in network organizations that produces socially significant results. Therefore, the organization that is in "sending-obtaining" stage is inappropriate as for the purpose of the present research; thus, this paper focuses on the analysis of the organizations in "CoI" and "CoP" stages. With this in mind, the author selected "Hama-kotori" (HK) as a research site. HK is a network organization which is in charge of arrangement and coordination of a civic art event called Yokohama triennale Since the mailing list has been actively used in this organization besides face-to-face communication, the author regarded it a suitable research field.

The author adopted the approach of "methodological triangulation" to understand the structure and the process of the collaboration of this organization in the real world and the cyberspace. First, Social Network Analysis (SNA) method was adopted to analyze the communication structure among members. Quantitative text analysis, or text-mining method, was utilized to find a meaningful pattern from the mailing list log. Participatory observation by the author in the organization was also performed. This research combines those three methods to understand the structure and the process of the collaboration of this organization from the perspectives of both the real world and the cyberspace

As the result of the social network analysis, the "centrality-shifting" phenomena were observed. The

centrality of the member who first posts her/his idea to the mailing list had not been kept her/his centrality and it intermittently shifted to other members. The quantitative text analysis found that the "distributed division," a variety of subgroups, emerged through the process of the collaborative activity of the network organization. Through the participatory observation, the author was able to understand the process in which "distributed division" was actually formed in the site. As a result, it was suggested that the division was generated after each member's self-regulation and mutual positioning in the organization.

Findings of this research, "centrality-shifting" and the emergence of "distributed division" may provide a useful suggestion for understanding the detail process of collaboration in network organizations, including generation, development, and maintenance in the voluntary network.