ABSTRACT

It is pointed out that the 21st century is an era of knowledge creation where productivity of knowledge is more important than the productivity of things. Therefore, improvement of the productivity of knowledge is an urgent demand from public organizations i.e., industry, academia and government as well as personal individuals. As a method to achieve it, knowledge management systems have recently been studied and developed. However, there have been few cases that could successfully improve the productivity of knowledge; many systems have been installed but not used. One of the principal problems of the ordinary attempts is, I think, the unbalanced way for sharing the knowledge. For example, experts are required to voluntarily provide their professional knowledge to create and to maintain a knowledge-base with many efforts so that novices as free riders can readily exploit the knowledge-base without any efforts. In order to solve and/or to avoid this problem, I focused on informal communications by chance as places for sharing knowledge and my laboratory has been constructed various e-cocreation systems to support sharing and creating knowledge in the informal communications. This chapter introduces some of the research efforts conducted in the author’s laboratory.

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INTRODUCTION

This chapter will introduce the research that the author’s laboratory has been undertaking into establishing venues to promote the sharing and co-creation of knowledge. I and my laboratory members have focused on informal communication as a venue for such knowledge sharing and co-creation. There are various definitions of the phrase “informal communication,” but we use the phrase “informal communication” to refer to “communication which is not planned in advance and which arises incidentally without any specific topic of discussion or objectives to be decided, or any ordered process etc.” (Kraut et al. 1990)

In response to Nonaka and Takeuchi’s claim that productivity of knowledge becomes an important key for enterprises to survive and to develop in the 21st century (Nonaka & Takeuchi 1995), various Knowledge management systems (KM systems, hereafter) have been developed, marketed and installed to many companies to increase the productivity of knowledge. However, most existing KM systems have not yet satisfactorily worked as they were expected up to now. Krogh et al. (Krogh et al. 2000) explained the reason why KM systems did not work well from the organizational viewpoint. To enable knowledge creation in the enterprises, following five factors should be combined and utilized: 1) instilling knowledge vision, 2) managing conversations, 3) mobilizing knowledge activists, 4) creating the right context and 5) globalizing local knowledge. These factors must be always considered to promote knowledge management. Any organizations that do not satisfy or do not attempt to satisfy them shall not success in knowledge management regardless of using the KM systems.

On the other hand, the existing KM systems include an essential problem. Typical KM systems have been grounded on a belief that live and useful knowledge is basically “static” and can be easily captured, transcribed, stored and exchanged by the IT systems. Hori (Hori 2005) pointed out that this is a wrong belief. Knowledge is dynamic. Each knowledge should be captured and stored with the context, and a new knowledge is reconstructed with considering a new context to which the reconstructed knowledge is applied.

However, it is still difficult to capture knowledge even if we consider the context. Liu pointed out that a computer can manage “data” but not “knowledge.” It is also very difficult to adequately reconstruct suitable knowledge that can be applied to a new context. Furthermore, their approach still has a structural defect that the ordinary KM systems had, too. Namely, the providers of the knowledge, i.e., the experts, are imposed heavy labor to input knowledge to the systems and to maintain it, while the users of the knowledge can readily utilize the knowledge in the systems with very light effort. This is the contrary of the common sense, i.e., the benefit principle. We think this structural defect is the most principal reason why the experts are reluctant to provide their valuable knowledge, rather than the poor incentive problem.

We focused spontaneous informal communications as a chance for effective knowledge-sharing and knowledge co-creation. The function that informal communication possesses to promote the sharing and co-creation of knowledge has been the subject of focus for some time, and empirical research into its utility at companies etc. has been undertaken (Kraut et al. 1990). However, every now and again doubts have been expressed as to its efficacy. In other words, there are claims that it is hard to consider communication corresponding to mere conversation as constituting a venue for the sharing or co-creation of meaningful knowledge, and that even if such processes do occasionally take place such a venue is too inefficient. The author also agrees that in some situations, such claims are accurate. If people who do not know one another’s names do happen to meet, the probability that communication will arise in this situation is extremely low, and even if some sort of communication should arise, it is difficult to get