Development of Collaborative Gathering Information System (CGIS) utilized by XML and Personalization

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Introduction

With the spread of Internet and development of digitization, our circumference is filled with various information resources. Most of such information resources grow up as existence to give an important clue for learning, business and many problems we have in life every day. In fact, some companies adopt Groupware and EIP(Enterprise Information Portal) in order to share and learn business intelligence between many employees. The purpose of this study is to develop a system of sharing network information resources and promoting collaborative learning. This system, Collaborative Gathering Information System (CGIS), integrates various network information resources to XML and has some functions to reuse information gathered. Furthermore, by utilizing filtering collaborative technology it can distribute useful information that met profile of users.

Basic Concept

The basic concept of this system resembles “Data Warehousing”. This system is divided into two functions.

- A function to integrate in a common XML format while maintaining the structure of information gathering by this system
- As agent to personalize information and send a new notice to users

XML (eXtensible Markup Language) is Electronic Data Interchange format of next generation and succession language of prospective SGML.

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Table 1: Basic concept of CGIS
User interface

This system has administrative (server) and user’s (client) functions as follows. Major administrative functions are to authenticate users, personalize user interface, analyze user access logs, and register channels (various information resources on networks). These take administrative function distributing information.

Main users functions are to inspect information gathered (And we can jump the Web site if the channel is Web resources on networks), edit their channels, and retrieve information. By utilizing XML, we can retrieve information more effectively than by utilizing ordinal retrieval systems.

Evaluation

We only enforce a simply experiment for usability evaluation at present. Many users pointed it out as follows. “When we gather information and data for various information resources on networks, it is hard to retrieve and share them because of the different in the use method and format of each information resources.”

In this experiment most of users evaluate the case that used this system (CGIS) higher than not use it. We developed the prototype system utilized CGI Web technology last year, but this system used XML and Java is much faster than the prototype at a point of representation speed from the view of system’s efficiency.

Conclusions

So far we have outlined the concept and function of CGIS that promote to share and learn information on networks. In Concluding, we guess that this system has high effectiveness as administrative tools for various information resources.

From this point we might go on to an evaluation of the effectiveness of using this from the statistical view (for example “recall ratio – relevance ratio”) in future. The future direction of this study will be one that encompasses both “Information filtering method” and “Application study of system”.

Reference


