

# Prototype System Of The Electronic Bulletin Board Integrated Management System

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## Abstract

Various electronic bulletin board systems (BBS) exist on the Internet. A user has to use two or more BBS. Because his/her interests may not be restricted to only one subject and BBS satisfying his/her interests may not be restricted to only one also. Furthermore, in each BBS, two or more subjects are parallel discussed while the newest contribution is always carried out. Therefore, when a user tries to keep on perusing about a specific subject, it is necessary for the user to remember in which BBS the subject exists and in the past what article of the subject was read.

In this paper, we are aiming to construct an electronic bulletin board integrated management system. In this system, a user is able to use two or more BBS just like one BBS. In this paper, we present a framework of the electronic bulletin board integrated management system and implementation of a prototype system.

## 1. Introduction

Various electronic bulletin board systems exist on the Internet. These electronic bulletin board systems have different features such as only the registered members can view and contribute to electronic bulletin board systems, or only specialist gathers at electronic bulletin board systems. A user has to use two or more electronic bulletin board systems. Because his/her interests may not be restricted to only one subject and electronic bulletin board systems satisfying his/her interests may not be restricted to only one also.

Furthermore, in each electronic bulletin board systems, two or more subjects are parallelly discussed while the newest contributions are always carried out. Therefore, when a user tries to keep on perusing a specific subject, it is necessary for the user to remember in which electronic bulletin board systems the subject exists and in the past what articles of the subject were read.

In this paper, we are aiming to construct an electronic bulletin board integrated management system.

In the system, a user is able to use two or more

electronic bulletin board systems just like one electronic bulletin board systems. We present a framework of the electronic bulletin board integrated management system and implementation of a prototype system.

## 2. The problem and solution when using two or more electronic bulletin board systems

### 2.1 The problem when perusing

After analyzing the method of using two or more electronic bulletin board systems [2], we noticed the following problems when users generally tried to peruse two or more electronic bulletin board systems at the same time.

1. Opening and comparing windows for every electronic bulletin board system are inconvenient for a user.
2. A user cannot track the articles that are read and the articles that are not read.
3. If the user does not manage the follow up threads and information on the articles, it is difficult to look for them again.

The problem 1 occurs when two or more electronic board systems are simultaneously used. This problem has been solved by the system called WebBBS [ ] Reader, which displays the electronic bulletin board system on WWW on one window per electronic bulletin board system. However, this system cannot read articles for every electronic bulletin board system.

It is more effective to display per thread to peruse about the thread of the small number of an electronic bulletin board system. And, user has to peruse each,

in order to carry out such a perusal method with two or more electronic bulletin board systems. This is troublesome for a user.

About 2 and 3, he/she depends on perusal history or checks a thread to be perusing on memory or the cash of a browser. These are not easy for a user.

Therefore, we have to offer support to user to make check easy and possible in a perusal history or on classification at a thread unit or an article unit.

### 2.2 The problem when contributing

There is a problem of difficulty in managing personal information according to each electronic bulletin board system when contributing. The personal information treated here is nickname, a mail address, URL, etc. A user may properly use this personal information for each electronic bulletin board system.

He/She depends on proper use of personal information on memory of a user in many cases. These are not easy for a user.

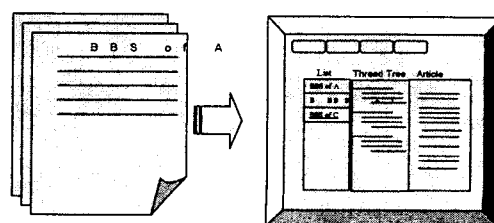
### 2.3 The problem and solution when using two or more electronic bulletin board systems

The following techniques are taken in consideration in the system we propose.

Technique 1: The thread of an electronic bulletin board system is regarded as independent, and the article in an electronic bulletin board system board is indicated by package per thread.

Technique 2: A user's perusal history is managed and displayed according to his/her perusal history.

Electronic bulletin board system on Internet



The electronic integrated man

Technique 3: A user's taxonomy is managed and displayed according to the classification

Technique 4: A user registers the person information with each electronic bulletin board system beforehand.

The following sections describe the electronic bulletin board integrated management system using the above technique1-4. The image of the perusal using Technique 1-3 is as shown in figure 1.

Thus, by structuring the screen in this way, a user is able to peruse two or more electronic bulletin board systems just like one electronic bulletin board systems.

### 3. The electronic bulletin board integrated management system

#### 3.1 Structure of the electronic bulletin board integrated management system

The electronic bulletin board integrated management system which we propose is structure as shown in a figure2. This system consists of three databases, three modules, and user interfaces. The details are as follows.

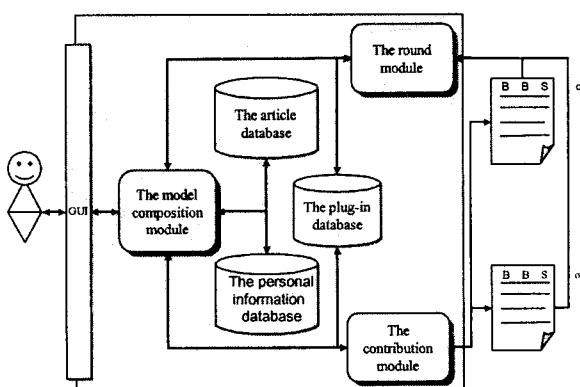


Figure 2: Structure of The Electronic Bulletin Board Integrated Management System

The article database

This database keeps article of each electronic bulletin board systems and the classification method of the article each electronic bulletin board systems.

#### The personal information database

This database keeps the personal information used with the electronic bulletin board system and the bulleting board to be used.

#### The plug-in database

This database keeps plug-in corresponding to each electronic bulletin board system.

#### The model composition module

This module analyzes a demand of a user and performs the followings according to a demand of a user.

- This module registers an electronic bulletin board system into the personal information database.
- This module issues a command so that the electronic bulletin board system registered into the round module may be patrolled.
- This module issues a command so that the article, which contributes to the contribution module, may be contributed to a suitable electronic bulletin board system.
- This module passes the classification of the article, which the user registered, to the article database.

#### The round module

This module patrols the electronic bulletin board system on the Internet periodically, and an article is gained or it gets personal information required at the time of contribution.

#### The contribution module

This module contributes a user's contribution to a suitable electronic bulletin board system.

### The User interface

The User interface receives a demand of a user or performs the display according to the demand.

It states focusing on the function of a prototype system present in preparation from the following paragraph.

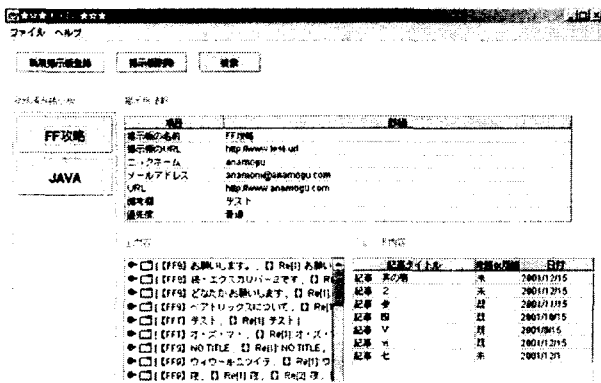


Figure 3: Screen of The Electronic Bulletin Board Integrated Management System

## 3.2 The perusal method in the electronic bulletin board integrated management system

### 1. Registration of a electronic bulletin board system

A user has to register an electronic bulletin board system to use. The contents registered at this time are URL and the title of an electronic bulletin board system. This title can be set up so that it may be easier for user to use.

If registration of an electronic bulletin board system is completed, a system will patrol an electronic bulletin board system and will acquire

an article.

### 2. Display of Article

This system is made to display per thread using a technique 1. When two or more electronic bulletin board system s are registered, threads are displayed in order of thread that has the latest article in the thread.

### 3. Classification of Thread

A thread can carry out the next classification. It is automatically classified according to the perusal history as shown below.

**NEW:** When there is an article that is in the latest article and is not read in the thread

**UNREAD:** When there is an article that has not been read in a thread

**READ:** When all the articles are read in a thread

**All UNREAD:** When no articles have been read in a thread

The priority of a classification of a perusal history is as follows.

**NEW > UNREAD > READ > All UNREAD**

The classification, which a user sets up using a technique 3, is defined as follows.

**Important:** When the thread is important for a user, and user want to peruse from now on

**Check:** When the thread is not important for a user, and user want to peruse from now on

**Solution:** When it is not necessary to peruse this thread from now on and user want to save this thread.

**Un-displaying:** When user dose not want to peruse from now on

The priority of the classification, which a user sets up, is as follows.

**Important > Check > Solution > Un-displaying**

#### 4. Sorting

By using sorting, a user can sort a thread to the following three kinds.

1. The article in a thread sorts in the earliest order.
2. The thread is sorted in the higher order of the priority a user's perusal history.
3. A thread is sorted in the high order of the priority of the classification, which the user set up.

#### 3.3 The contribution method from an electronic bulletin board integrated management system.

A user chooses an electronic bulletin board system and contributes when an article is a new thread. A user chooses an article and contributes when an article is response. Personal information required at the time of contribution also acquires something at the same time, as for this system, a round module acquires article. When this is the first time that it writes for the electronic bulletin board system, required personal information is inputted and article is contributed. This personal information is kept by the personal information database using a technique 4. A user can contribute from the 2nd time, without caring about personal information, because, since it is automatically displayed from a personal information database.

#### 4. Conclusion

In this paper, we presented an electronic bulletin board integrated management system, which solves the problems that occur when using two or more electronic bulletin boards. In this system, a user is able to use two or more electronic bulletin board systems just like one electronic bulletin board systems.

We implemented the system and conducted an evaluation experiment.

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