

# SOCIAL NETWORKING WEBSITE AS A COMMUNICATION MEDIA: STUDY CASE PETRA CHRISTIAN UNIVERSITY LIBRARY

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## ABSTRACT

*By using web technology, the deployment of global information and communication is done quickly and organized. Petra Christian University Library has already had a web application in information deployment of the library collection. However, the deployment of the collection has been doing by the library, but member cannot communicate and share their own collection each other. Library needs a tool as a media between library members, public people and Petra Christian University Library. Therefore, social network as one of communication media among people who share interest or activities can be used to solve library's need. Library can use the social media services to communicate and disseminate information.*

*In this paper, a web application is built to provide a media of communication between user, public and library for information and collection deployment. Members of library's social network can publish their profile, favorite collection, rate a collection, collection wish list and review a collection that the others can respond.*

*From the implementation and the test done, the result is a thoroughly and organized information and collection deployment that support the communication and information sharing between user, proven by the questionnaire. The ease of exploring a social network website is an important thing.*

## 1. INTRODUCTION

Petra Christian University Library is one of the libraries that use the internet for dissemination information of its collection. The library has already have a web application to do this task. However, this web only disseminate information in unidirectional communication, from library to internet users or public. Therefore, the users only as a passive party who can only read information without being able to publish and share information of their collection. Petra Christian University Library would like to know user's interests and user's response to the library collections.

Library want to create a media that can be used for interaction and communication between library members, public people and Petra Christian University Library. With this media, all parties can publish their collection, share ideas and communicate each other. By using this system, information about the collection do not only come from the library but can also come from the user, so that information about the collection can be more complete. In addition, the presence of these system can also help the user to interact and communicate with other users.

With the development of internet technology, the penetration of Internet usage affects almost all aspects of life. One of changes is social networking. Social networking becomes online in in website form that align with web application built by the library.

## 2. SOCIAL NETWORKING

Social Networking is a topic that has recently gained much attention and publicity. Social networking is a social community site where users can keep the relation with their friends or colleagues for business or

social purposes, such as finding a job, reconnecting with old friends, moving to new areas, or sharing common interests in hobbies, research, religions, etc. Another one of those benefits includes diversity because the internet gives individuals from all around the world access to social networking sites. Social networking program allows people to identify existing social relations and create new social relationships ("What is social networking", 2009).

Online social networking has some, such as data theft and the spread of the virus increases. The most prominent dangers often involve individuals who claim to be someone who is not them ("1st Workshop on Friend of a friend, social networking and the semantic web", 2004, Sept 1-2).

## 3. SYSTEM ANALYSIS

Social networking as one of communication media among people who share interest or activities can be used to solve library's need. Library can use the social media services to communicate and disseminate information directly.

Based on users type who access this website, system categories the user into three roles (user or public, admin who maintain the website and library's member). These roles is related to the features that can be accessed by the user. The features that can be accessed by users and members can be seen in Table 1.

**Table 1. User and Member's features**

| Fitur               |                     | User | Member |
|---------------------|---------------------|------|--------|
| Home                |                     | X    | X      |
| Profile             | View                | X    | X      |
|                     | Update              | X    | X      |
| Photo Galery        | Create Album        | X    | X      |
|                     | Add Photo           | X    | X      |
|                     | Delete Photo        | X    | X      |
|                     | Comment Photo       | X    | X      |
| Friend              | View                | X    | X      |
|                     | Add                 | X    | X      |
|                     | Delete              | X    | X      |
| Search              | Collection          | X    | X      |
|                     | User                | X    | X      |
| Collection          | View                | X    | X      |
|                     | Add                 | X    | X      |
|                     | Delete              | X    | X      |
|                     | Update              | X    | X      |
|                     | Comment             | X    | X      |
| Favourite List      | View                | X    | X      |
|                     | Add                 | X    | X      |
|                     | Remove              | X    | X      |
| Wish List           | View                | X    | X      |
|                     | Add                 | X    | X      |
|                     | Remove              | X    | X      |
| Member Registration |                     | X    |        |
| Library             | Collection reserves |      | X      |
|                     | Borrowed List       |      | X      |
|                     | Borrowed History    |      | X      |

Profile contains the latest information about the user or member. Information can be a new collection and new photos uploaded.

Photo Galery contain a series of a picture. User or member can maintain and manage their own album (upload, delete, comment).

Friend is a feature that list a group people that become friend of user or member.

Search is feature to help user or member to find people or collection based on keyword.

Collection is a feature that user or member can manage their own collection.

Favorite list is a list of collection owned by user/member/library which became the most favored.

Wish list contains a list of collection desired by user or member. It can become request collection for library.

Member Registration is a feature where user or public can fill the available form to join becoming library member.

Special for library's members, they can reserve collection they want to borrow, view a list of current borrowing collection and view the history of borrowed collection.

Website features for administrator can be seen in figure 1 (administrator use case diagram)

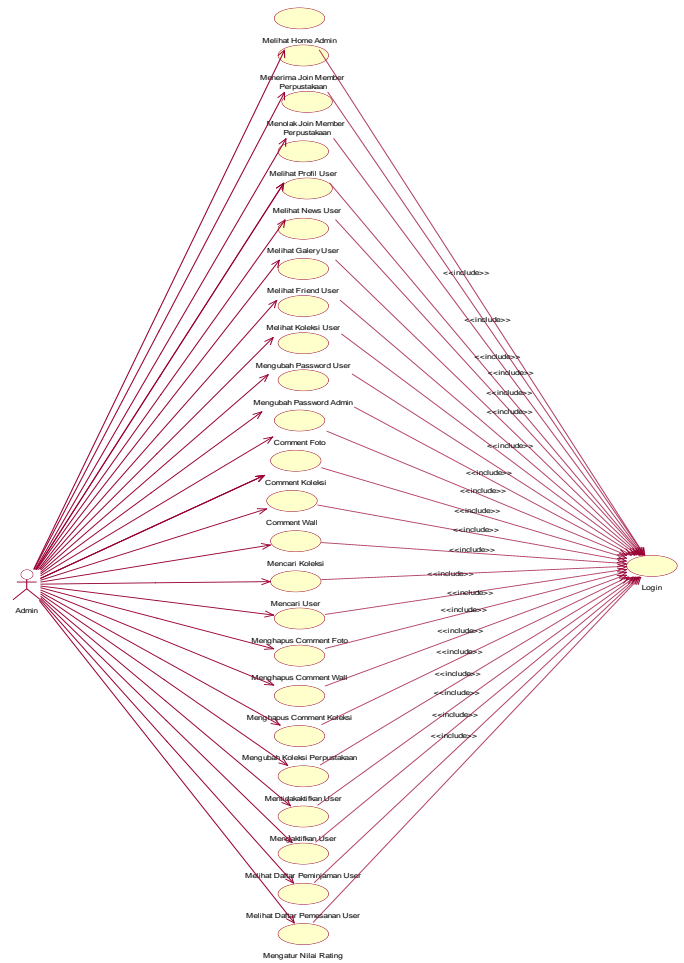


Figure 1. Administrator Use Case Diagram

## 4. IMPLEMENTATION

The implementation starts from login form to website features for user, member and administrator.

### 4.1. Member Registration

Figure 2 below show the "Member Registration" interface. User or public can join becoming library member via this feature.

Welcome,

It's free and anyone can join, you can register here

Username :   
Name :   
Password :   
Re-Password :   
Address :   
Religious :   
Hometown :   
Email :   
Sex : Female ▾  
Birthday : Jan ▾ 1 ▾ 2010 ▾

Figure 2. Member registration

#### 4.2. "Home" for User

When the user has already login into their account, user will see Home interface as shown in figure 3 below. This Home interface show the recent news from other users who have become friends.



Figure 3 Home interface for User

#### 4.3. Adding collection

On this feature, user can add a list of his personal collection to the website as shown in figure 4. User can upload the collection in pdf format too.


 Add e-Book  
Judul:   
Pengarang:   
Penerbit:   
Tahun Terbit:   
Kota Terbit:   
Cover Koleksi:    
File PDF:    
Review:

Figure 4 Add collection page

#### 4.4. Send a message

User can send message to friend directly as shown in figure 5. Warning system will appear when the recipient is blank field.


 Create Message  
New Message    
Sender: Hary Wijaya  
Recipient:   
Subject:

Figure 5 Send a message interface

#### 4.5. Privacy setting

On this page, user can set the privacy or account settings. Users can choose their accounts can be viewed by all users or only users who have become friends. After selecting all items, the user can press the save button to save the settings for. Page views privacy settings can be seen in figure 6

Privacy Setting  
Show Address: Everyone ▾  
Show Religious: Everyone ▾  
Show Hometown: Everyone ▾  
Show Birthday: Everyone ▾  
Show Sex: Everyone ▾  
Show Email: Everyone ▾  
Show Phone Number: Everyone ▾  
Show Hobby: Everyone ▾

Change Password

Account Setting  
Status Account: Activate ▾

Figure 6. Privacy setting interface

#### 4.6. "Home" for administrator

Administrator has a role to manage and maintenance this website, both for the features and the community. To support that role, a special interface must be designed. Home interface for administrator show the statistic at glance for the website usage as shown in the figure 7 below.

LIBRARY A CARING LEARNING ZONE  
WELCOME ADMINISTRATOR

About Web  
Number of users that are still active : 32662 user  
Number of users that are inactive : 2 user  
Number of users are not a member of the library : 0 user  
Number of collections from all users : 2 collection  
Number of collections from Perpustakaan : 110545 collection

Figure 7. Home interface for Administrator

#### 4.7. "View User" for administrator

Administrator can view user page, both public user or library member as shown in figure 8. For detail information, administrator can click the user name to see the user profile. From the user profile page, administrator can see all the activities, including user's Home, Photo Gallery, Friend List, change user's password, activate or de-activate user, manage user's comment, etc. Administrator can do everything as user can do.



Figure 8. View user interface

#### 4.8. View Collection

On this feature, user/member/administrator can view user's or library collection. They can search the collection from several available categories as shown

in figure 9. Administrator has special privilege of editing or deleting collection, view reservation list, borrowing list.

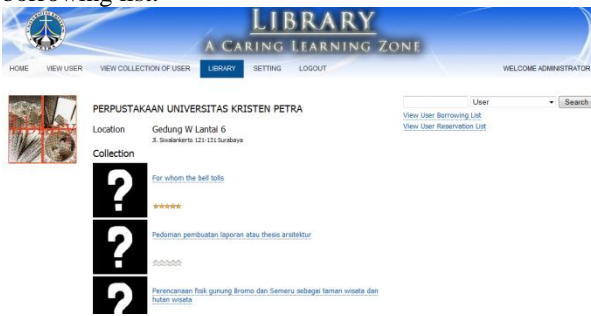


Figure 9. View collection

#### 4.9. Setting

User can give rate for collection. All these rate is calculated based on certain formula with several variables. These variables can be set on setting page. The interface of setting page can be seen in figure 10.

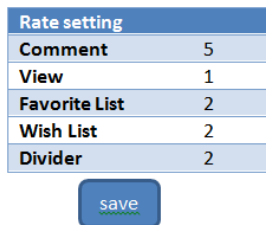


Figure 10. Setting Interface

### 5. EVALUATION

The evaluation of the application of this program is done by analyzing the questionnaires of the three users and three librarians who carried out tests on this application. This evaluation is done through a user rating given to the criteria mentioned in table 2.

Table 2. Questionnaire Result

| Question  | Result |
|---|--------|
| Website design  | 7,6    |
| Website navigation (easiness and clarity)                   | 8,6    |
| Information or content                                      | 7,3    |
| Features (easiness)   | 8,3    |
| Features (completeness)                                     | 8,0    |
| Features (user's need)                                      | 7,3    |
| Convenience in accessing information                        | 8,6    |
| Ease of communication and sharing of information collection | 8,6    |
| Ease in finding information collection                      | 8,6    |
| Overall   | 8,3    |

### 6. CONCLUSION

From the implementation and the test done, the result is a thoroughly and organized information and collection deployment that support the communication and information sharing between user, proven by the questionnaire. The questionnaire's result shows 83% respondents claim their satisfaction to this website.

The ease of exploring a social network website is an important thing, including comfort and navigation.

### 7. REFERENCES

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