



# Social Media Software as a Web-Based Department of Communication Means Mobile (Case Study Department of Information Engineering)

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## ABSTRACT

Information can be spread out to people directly or through a media. Social media is often used to spread the information. Most of people need not special skills to use social media. A lack of direct communication among students causes the information ineffectively and inefficiently delivered. Therefore, the social media that is expected to help spread information and maintain communication among students is needed to design. The web mobile based social media for the departments was designed to help spread information in order to communicate information among students in an effective and efficient manner. The information was spread out through updating the user's status on the social media. Moreover, the users also provided comments and suggestions on the comment line this software was developed further by adding a group feature live streaming in order to facilitate the users in sharing suggestions and information.

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## 1. INTRODUCTION

Background whether we realize it or not, the media with all its content is present to be a part of human life. Along with the times, the presence of the media is increasingly diverse and growing. Initially, communication in the media went only in one direction, in the sense that media connoisseurs could only enjoy the content presented by media sources. Now ordinary people can participate in filling the content in the media. Social media is present and changes the paradigm of communication in today's society. With the existence of social media, communication can run without being limited by distance, time, and space. Social media that can be accessed anywhere and by anyone without requiring special skills. Social media is generally used to keep in touch with friends or family, meet people who have the same interests, discuss an issue, share opinions, give and answer questions. Even social media is able to negate social status, which is often a barrier to communication. Communication that exists between students, students to lecturers is sometimes still less effective. This is because passive students find it difficult to communicate directly with fellow students and also with supervisors, both academic supervisors and thesis supervisors.

This lack of communication often causes students to lack information. The existence of a media that is able to create a communication relationship between students and lecturers, can help lecturers and students to interact effectively and efficiently. Helping lecturers to disseminate information that can be accepted by students without having to meet in person. Even social media is able to negate social status, which is often a barrier to communication. Communication that exists between students, students to lecturers is sometimes still less effective. This is because passive students find

it difficult to communicate directly with fellow students and also with supervisors, both academic supervisors and thesis supervisors. This lack of communication often causes students to lack information. The existence of a media that is able to create a communication relationship between students and lecturers, can help lecturers and students to interact effectively and efficiently. Helping lecturers to disseminate information that can be accepted by students without having to meet in person. Even social media is able to negate social status, which is often a barrier to communication. Communication that exists between students, students to lecturers is sometimes still less effective. This is because passive students find it difficult to communicate directly with fellow students and also with supervisors, both academic supervisors and thesis supervisors. This lack of communication often causes students to lack information. The existence of a media that is able to create a communication relationship between students and lecturers, can help lecturers and students to interact effectively and efficiently. Helping lecturers to disseminate information that can be accepted by students without having to meet in person. which is often a barrier to communication. Communication that exists between students, students to lecturers is sometimes still less effective. This is because passive students find it difficult to communicate directly with fellow students and also with supervisors, both academic supervisors and thesis supervisors. This lack of communication often causes students to lack information.

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## **2. RESEARCH METHOD**

### **2.1 Collection Method**

Data Data collection method data is the method used to collect data that will be used and included in the application that will be made.

- a. Observation (Observation) Direct observations of students majoring in Informatics Engineering to obtain information about the communication that exists between students.
- b. Library Studies Collecting data by collecting, studying, and analyzing materials in the form of books, scientific journals that support and relate to this research.
- c. Interviews Interviews were conducted directly with lecturers in the Department of Informatics Engineering to obtain information about the problems that exist in the department.

### **2.2 System Architecture**

This research was conducted using tools both in the form of hardware and software, as follows:

- a. Hardware (Hardware) The hardware used in this study are as follows:
  - 1) Processor Intel(R) Celeron(R) CPU N2840 @2.16 Ghz.
  - 2) Random Access Memory (RAM) 2.00 GB
  - 3) 15-inch monitor with a resolution of 1366 x 768 pixels
  - 4) Hard disk 500GB 18"
  - 5) Keyboard
- b. Software (Software) The software used in the study are as follows:
  - 1) Microsoft Windows 7 Ultimate Operating System
  - 2) Dreamweaver Cs5 Programming Language
  - 3) Xampp Database Program.
  - 4) Notepad++.
- c. Software Development Model  
 The software is made using the Waterfall software development model which starts from the planning, analysis, design, implementation and maintenance stages of the system.
  - 1) Planning In the planning phase of this system, researchers must plan what project will be made or in other words define the problem to be solved. How to make an activity recording system and make social media a means of communication for the department.
  - 2) Analysis To obtain the basic information needed, the users of this system are divided into 2 :
    - a) Admin The person who is allowed to access and supervise the mobile web-based major's social media software system.
    - b) Users (users) Users or users for this application are students and lecturers.
  - 3) System Design In this phase, the system design will be carried out before coding. This stage aims to provide an overview of what must be done and how it will look. This stage helps in specifying hardware and system requirements and defines the overall system architecture.

### 3. RESULTS AND DISCUSSIONS

After going through the design and needs analysis stages and passing the application testing stage directly, the results obtained are Social Media Software as a Mobile Web-based Department of Communication that is suitable for use as an application media that can be opened on all platforms, the following will explain the software that will be used. When used, the results of this application display are described in the form of a program display that has been run on mobile devices and browsers. The views of this application are as follows.

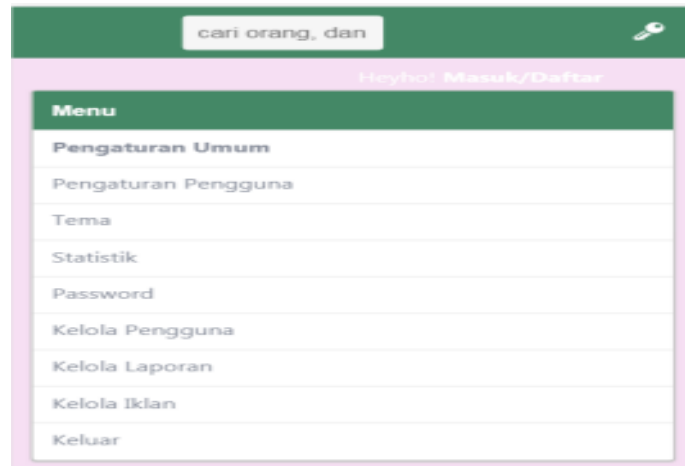
#### 3.1 Admin page display

To be able to access the main page, the admin needs to login by entering the username and password first. The login display for the admin can be seen in Figure 1

Figure 1. The login display for the admin

#### 3.2 Admin home screen

Admins who have successfully logged in will be redirected to the admin home page. Where on that page there are menus and settings to manage the existing system, as well as manage users. The main admin menu after logging in can be seen in Figure 4.2



### 3.3 Main Page Display

The main page is the page that appears first when the user accesses the system. On the main page there is also a registration form and a login form for users. The main user page can be seen in Figure 2



Figure 2. The main user page

### 3.4 System Testing

Testing is the most important stage in the development of a system. Testing is carried out to examine the application program as a whole, from design to application coding. It aims to see if the system is running well and free from errors. Testing is carried out using the Blackbox testing method which focuses on the functional requirements of the software. Testing is done by providing test data input which is then checked whether the resulting output is in accordance with the research objectives.

**Table 1. System Test Results**

No	test case	Expected Results	Output result
1	sign up now	The data will be stored in the database	ok
2	Login login/no	Failed message appears	ok
3	Status updates	Show written status	ok
4	Status comments	Showing other users' comments	ok
5	Message	Send and receive messages	ok

### 3.5 Discussion

The mobile web-based Social Networking application is built using the PHP and jquery programming languages, while for database processing it uses MySQL. The following are the research results that have been achieved. For the needs analysis stage, it is used to analyze the hardware and software according to the needs so that the best alternative is obtained in application development which is continued in system design by determining the actors and use cases included in the Use Case Diagram design. This application is able to run on the Firefox web browser and several other web browsers with the latest versions.

### 4. CONCLUSION

After analyzing, designing, implementing and evaluating the system. Then the following conclusions can be drawn, after analyzing, designing, implementing and evaluating the system. Then the conclusions is this mobile web-based social media software is intended for informatics engineering students. The design of the display of mobile web-based social media software is made easier by using the jQuery Mobile framework because with the jQuery Mobile framework the display will automatically adjust to the mobile device screen. Users who have registered and logged in can share their information through the created status. And can also exchange messages with fellow users.

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