



Designing Information System Of Social Media Alumni National University Based On Website

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ABSTRACT

Alumnus is someone who has graduated from high school or college and has an important role in showing image and quality, because the alumni association forum is not just a forum for friendship between alumni, but also a forum for discussion and communication in an effort to advance higher education. Until now, alumni of the National University (UNAS) integrate and communicate only through social networks such as WhatsApp and Facebook, so with this web-based internet facility, alumni can utilize and facilitate communication between alumni. This web-based social network is designed not only to connect alumni from the National University (UNAS) but can establish relationships between National University lecturers (UNAS) and can exchange information in various types such as job vacancies, training, professional certification, campus environment activities and information others that are useful for alumni and lecturers of the National University (UNAS). This site was created by first starting the system design using UML then proceed with the creation of a user interface and using the PHP and MySQL programming languages as database management. This site still has some shortcomings both in terms of features and security

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1. Introduction

Tracer study is a mechanism carried out by various parties to track alumni in order to measure the relevance of goals, and the educational process with the current alumni condition. Tracer study has very important benefits, especially for educational service providers such as majors in tertiary institutions. That is, it can be used as a condition for completeness of accreditation by the National College Accreditation Board. In addition, tracer study can be used as a measurement of the extent to which the achievement of the vision and mission of the institution concerned. So that expectations going forward with a well-managed tracer study, the institution can continue to measure and evaluate the strengths or weaknesses that exist.

According to Ardiartoro et al (2016: 42) that social networking sites are a form of social media that can be used to communicate. Social networking sites that were originally used for friendship purposes (searching, finding and adding friends) can now be used as a medium for communication. Communication using social networking sites can foster a sense of togetherness, intimacy and attachment that is thicker when compared with other communication media on the Internet. Interaction between humans that involves communication is something natural that occurs between humans. The communication is used to be interconnected so that the delivery of information can be conveyed properly and clearly. Social networking is a social structure that gives users the opportunity to expand social relationships. The high level of network users who can not even be limited in scope, can be used as an opportunity to facilitate the relationships needed by a particular organization, social networking in human life. It can be clearly seen by all of us that social networking is able to make humans interrelate despite distance and produce a social so that people can get to know each other.



A collection of individuals is called a community. This community is formed because the habits of individuals interacting with other individuals then a group of individuals who interact with each other appears. Many benefits can be taken from social networking. The real benefit in daily life is having lots of close friends. Humans are referred to as social creatures, this term was raised because humans can not live alone, humans need help from others. For that, humans need to socialize so that a social network is created to support human life as social beings.

In its simplest form, a social networking network is a map of all relevant ties between the nodes studied. The network can also be used to determine the social capital of individual actors. This concept is often depicted in social network diagrams that embody vertices as points and bonds as connecting lines.

According to Hidayat (2010: 6) Website is the whole web pages contained in a domain that contains information. A website is usually built on many web pages that are interconnected. So it can be said that, understanding the website is a collection of pages. which is used to display text, still or motion picture information, animation, sound, and or a combination of all, both static and dynamic that form a series of interrelated buildings, each of which is connected with a network of pages. The relationship between one website page with another website page is called a hyperlink, while the text used as a connecting medium is called hypertext.

Websites are categorized into 2 namely static and dynamic websites, static websites are websites that contain or display information that is fixed (static), while dynamic websites are websites that display information and can interact with users.

2. Research Methods

In this Unas Alumni Social Media Information System, the researcher uses the Lifecycle Model of the Waterfall Software Development. The Lifecycle Model of Waterfall Software development is the process of developing / making software sequentially from one process to the next. In this model, there are several stages / phases that will be carried out. Namely, the stage of system design, analysis, design, coding of programs, testing programm, implementation, and maintenance.

2.1 System Planning

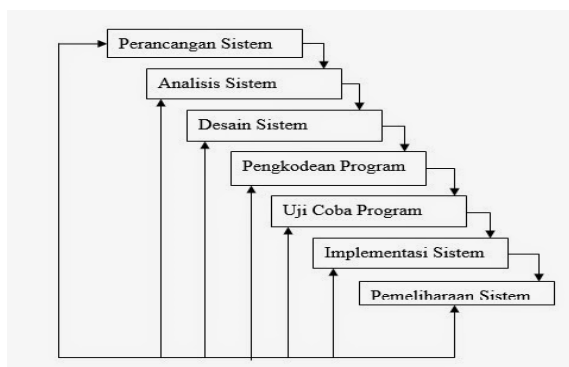


Fig 1. Stage of Medel Waterfall

At this stage a social networking system will be planned that can be used by alumni not only to interact and just get information but can also help the campus in registering graduates.

2.2 System Analysis

In the analysis phase the researchers made a design of the needs of the National University Alumni System. The system requirements consist of functional and non-functional requirements. Functional requirements, containing the functions that must exist, and will be created in the UNAS alumni system. One example of the function that must be made is alumni and alumni users can fill out the questionnaire Form. Then for non-functional needs are supporting needs to create a National University Alumni Social Media Information System.

The need for software and hardware in building this research is needed to smoothly build research as follows.

Software The following software is used in building applications, namely:

1. OS Windows 10 Home
2. Wordpress version 5.4
3. XAMPP version 7.4.5



4. Note++
5. Adobe Photoshop CS6
6. Mozilla Firefox 2.5.2

Hardware (Hardware) The following is the hardware used to build this research, namely:

1. Laptop acer E5-475G-58WK
2. Processor Intel Core i5-7200U CPU @ 2.5GHz
3. Ram 4 GB
4. Hardisk 1 TB

2.3 System Design

At the design stage the researcher tries to make or describe a running flowchart. Flowchart is a diagram that illustrates the function of any feature that is in the system. Then after that, the researcher makes a flowchart diagram for making a website. website flowchart diagram making is a diagram that will illustrate the processes that occur in the website creation system. flowchart diagram will technically describe the process that will occur. So that all the processes that are needed or occur will be known, and can be used for the basis of the next stage, namely the manufacture of the system.

2.4 Program Coding

Translating the results of the design process into a form of computer program that is understood by computer machines, at this coding stage the researcher uses the PHP programming language (Hypertext Preprocessor) and the source code editor uses the Note ++ application to edit text that functions to change the appearance of the design and fill the look of the website and mysql as a database..

2.5 Trial Programs

At this stage, the researcher used the Testing Method on the social media website of the national university using the blog engine application, CMS (Content Management System) WordPress with a text format that uses a web programming language, PHP (Hypertext Preprocessor) and the source code editor using the Note ++ application to edit text that functions to change the appearance of the design and fill the look of the website. Whereas for database access, it uses an xampp application that functions as a server on a local basis to manage various types of data on a website that is in the process of making or developing. The module in xampp that is needed is apache which is a web server while MySQL is a database server that functions as processing, editing and deleting database listings via localhost. In the final results of testing the national university's alumni social media website can be made with a display design through the WordPress blog engine so that the final result of this website test has a dynamic appearance. Are the functions that have been made can run well, and as expected. in addition, the researchers also tested how the implementation of the responsive Web could be implemented well, in a variety of different devices. Also, the researcher examines how the results of the calculation process from the Haversine Formulation can be judged valid or appropriate for use in the system. This stage is very important to be done to determine whether all the needs for the function or feature that have been determined can be used properly.

2.6 Implementation System

At this stage the researcher tries to implement the design results into the programming language and the source code editor uses the Note ++ application to edit text. Researchers use the PHP Programming Language (Hypertext Preprocessor) and source code editor using the Note ++ application to edit text and MSQL as a database in making this system. In accordance with the results of the analysis process, and design in the previous stage, the researcher will start writing or making each process or feature available. This stage is the core of the Software Life Life Cycle, where what has been predetermined, must be able to be made or implemented properly

2.7 System Maintenance

At this stage the researcher will monitor, and correct if there are bugs in the system. Then the researcher will continue to improve, develop, and improve the features that exist in the system to be more useful, and relevant to user needs. The purpose of this stage is, so that the system can continue to run well, along with developments in the world of technology and information.

3. Results and Discussion

The National University's Current Business Process System collects alumni users by distributing questionnaires. Then the questionnaire is archived and if necessary it will be recapitulated based on the needs that will be saved in the form of word and excel files.

Flowchart System Runs

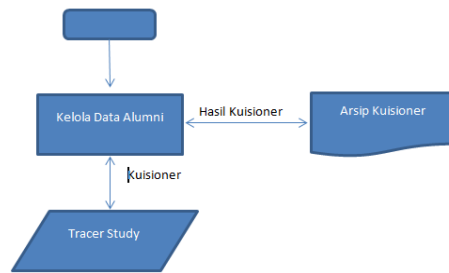


Fig 2. Flowchart System Runs

3.1 Flowchart Diagrams

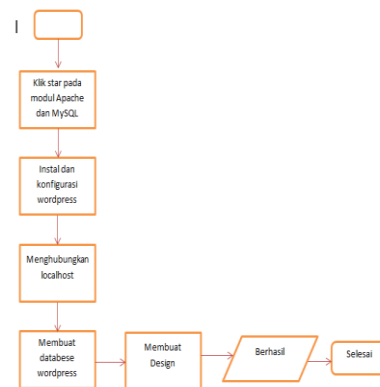


Fig 3. Website Creation Flowchart

The steps taken are click start on the xampp module in the form of Apache and MySQL Apache functions to display a web page that matches the php script that was previously created, while MySQL to manage the database, then after that install and configure wordpress and activate the database via localhost for create a wordpress database, after the flow is run, the author can make the website look as needed according to the needs of these users.

3.2 Implementation

1. Home page



Fig 4. Home Page

On this page there is a menu about us, news, stay connected (contact), alumni, surveys. Which can be accessed by users of Unas alumni social media.

2. About us page

On the menu page stay connected there is a menu in it which is the vision and mission menu, subdoctor profile of alumni relations, staff directorates, organizational structure. On this page can be accessed by alumni, alumni users and admins to see the vision and mission of the alumni and others.

3. News Page



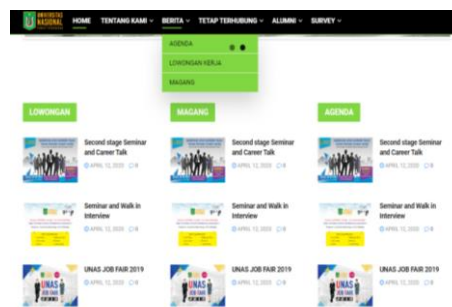


Fig 5. News Page

On this page there are agenda menus, job vacancies, and internships, which can be accessed by users, the function of the menu is as a menu for channeling information on job vacancies, internships and agendas. The use of this information is to help alumni and make it easier to get information about job vacancies, and make it easier for students who are looking for internship or practical work information.

4. Pages Stay Connected

On this page there is a menu of our contacts and social media & hotline services that can be accessed by admins, alumni and companies in accordance with their respective access rights. To make it easier for users to access alumni social media.

5. Graduate Pages

On this page there is a menu about tracer study, in order to tracer study it is giving information, improving and making improvements to the existing education system at national universities.

6. Survey Page

On the survey page there is an alumni questionnaire menu, alumni users and post alumni questionnaire. The function of the alumni questionnaire is to collect data on alumni of unas who have worked in accordance with their fields, while the function of alumni users is aimed at the leadership of the alumni's place of work related to the quality of graduates or alumni in the world of work.

On this alumni user page the company can complete the questionnaire and input suggestions and save. In order to record the alumni workplace alumni and alumni performance results whether alumni can participate work well or not in the company.

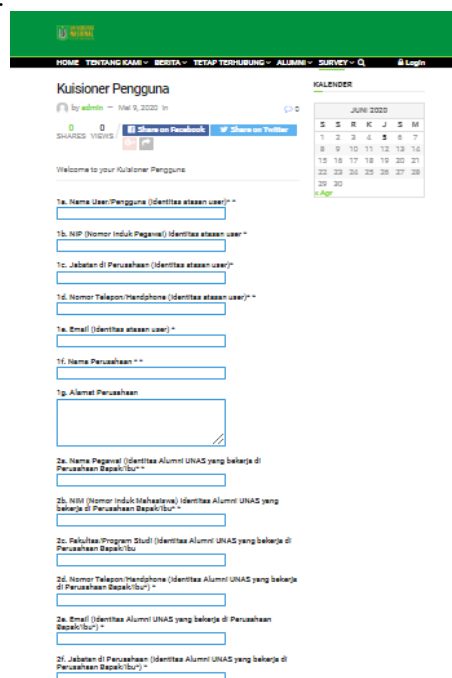


Fig 6. Alumni user questionnaire

On this page the leadership of the company where the alumni work can complete the questionnaire in order to record the company where the alumni work, after the company data is filled out by the alumni leader

working then the leader can press the next button then the user automatically continues the next questionnaire.

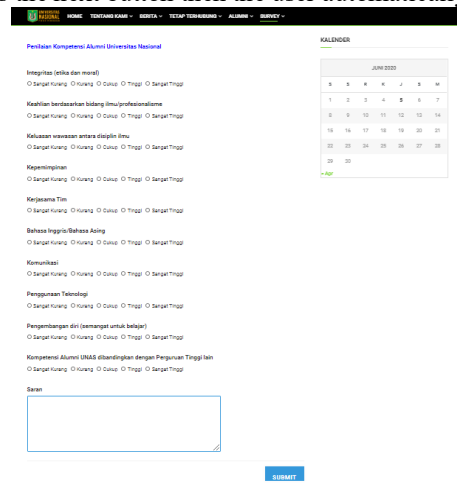


Fig 7. Alumni user questionnaire

The process of filling out the questionnaire and inputting the advice then saving. In order to record alumni workplace alumni and alumni performance results whether alumni can participate work well or not in the company where alumni work, after that the leadership can press the submit button, alumni data, alumni workplaces and alumni performance results will be saved automatically.

3.3 Discussion

After getting the results of the analysis the authors build a system that can be used by 3 levels of users namely admin, alumni and companies. At the admin level, it can display, add, change and delete alumni company, agenda, job vacancies, internships, tracer studies, tracer study questions, questionnaires questionnaire questions, message delivery and logout functions. At the alumni level, alumni can display alumni data, fill in alumni data questionnaires, fill tracer studies, display agendas, display job vacancies and internships. At the company level, companies can fill out performance evaluation questionnaires, fill job vacancies and internships. The results of the testing and implementation phase is the system built can run well and in accordance with the expected results. So that the management of tracer studies, alumni and companies can use this system makes it easy to monitor tracer studies and performance evaluation results.

3.4 Testing Graduate Social Media Systems

Tabel 1.

Testing of alumni social media functionality

No	Testing Menu Features	Results	Status
1	Home	The process of entering the home view is successful, the first time access to the website will bring up the initial display	Success
2	About Us	On the menu about us the process is successful, the user can go directly to the display features about us	Success
3	News	On the news menu the process is successful, the user can go directly to the news menu feature display.	Success
4	Stay Connected	On the menu of staying connected the process is successful, users can go directly to contact and social media skills	Success
5	Alumnus	If the alumni menu is successful, the user can enter Tracher Study.	Success
6	Survey	In the survey process the process is successful, the user can go directly to the display to the survey menu	Success

Testing the Social Media Alumni system by means of functionality to find out all the menu features on the website run well according to its function. And if there is an error in the menu features will be repaired, developed, and improved features in the system so that it can run in accordance with its function. With the results of social media testing this alumni can be accessed and relevant to user needs.

4. Conclusion

Based on the results of research and discussion of alumni of social media information systems based on websites at national universities, the conclusions can be drawn as follows:

With the existence of a national university alumni social media information system, it allows administrators to easily manage alumni data, and the existence of a national university alumni social media



information system can also make it easier for administrators to obtain alumni data that is already working and evaluating graduate performance.

This national university alumni social media information system can also help graduated students (alumni) to obtain and provide information related to job vacancies and information around national universities.

This national university alumni social media information system also provides information related to internships, which can help information for students who will carry out practical work.

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