

# Designing a Village Information System Through Social Media Schemes and Website Prototypes in Trimulyo Village, Yogyakarta

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## Abstract

This study aims to analyze the implementation of the Muhammadiyah University of Yogyakarta Real Work Lecture (KKN) program based on Information Technology (IT) by designing a village information system through the creation of social media designs and the design of the Trimulyo Kallurahan website prototype. Kalurahan Trimulyo does not yet have a profile book, and social media displays do not yet have an attractive design. The implementation of community empowerment through the University of Muhammadiyah Yogyakarta Real Work Lecture program based on Kalurahan Online (Kaline) is supported by creating a village profile that provides information on the village, population, and village potential. Making website prototype designs and social media display designs are beneficial in digitizing progress and services in Trimulyo Village. The social media display method and the prototype design of the Trimulyo Village Website are the first steps in optimizing the Website and Social Media in Trimulyo Village.

**Keywords:** Design, Village Information System, Kalurahan Online (Kaline).

## INTRODUCTION

Information systems are elements in delivering information and supporting the decision-making process (Kandedes & Irwansyah, 2021). Public information is an obligation according to the mandate of Law Number 14 of 2008 concerning the freedom of public information for the ease of access to government and public information (Kelen & Sikas, 2018). Technological developments can reach areas, including remote areas in rural areas, so that information can be accessed using the internet network (Huda, 2018).

Information about the village is essential, especially for the village government to find out about the village (Fitri et al., 2017). A website is a display page of information, motion pictures, or a combination of both, which is static or dynamic (Rachman & Noviyanto, 2017).

Information and communication systems increasingly touch all levels of society in disseminating information quickly and without space and time limits (Putra & Atmaja, 2021). Villages are currently getting the spotlight or attention from the government to be able to advance villages. Their developers need an information system to facilitate the performance of the village government towards services to the community, facilitate the process of managing information systems, and expand the information in the digital era (Putra & Atmaja, 2021).

The development of rural areas aims to create comprehensive and inseparable welfare (Soleh, 2017). The implementation of the Village Information System is mandated according to the mandate of Law Number 6 of 2014. Due to the lack of participatory human resources in managing information systems, it has not been implemented evenly, including in

the Special Region of Yogyakarta (Akhwan, 2020).

Community empowerment through the University of Muhammadiyah Yogyakarta Real Lecture Activities (KKN) program based on Kalurahan Online (Kaline) is an exciting program to design villages to become more advanced (Trimulyo, 2021). The implementation of the Real Work Lecture based on Kalurahan Online (Kaline) is helpful for villages in making village profiles, designing social media, and compiling a prototype website as a village information system which is a designed to make villages more advanced and independent in developing the potential of Trimulyo Village.

#### **IMPLEMENTATION METHOD**

Implementing community empowerment through an actual work course program, Universitas Muhammadiyah Yogyakarta based on Kalurahan Online (Kaline) can develop the potential of Trimulyo Village supported by making a village profile containing village information population and village potential. Website prototype design and social media design through the University of Muhammadiyah Yogyakarta Real Work Lecture (KKN) program based on Information Technology (IT) provide benefits for Trimulyo Village to develop the potential for sustainable economic development.

Implementation of the program with the following stages: First stage, internal preparation, namely KKN students consist of various study programs, and lecturers are given briefings to find out the program. The second stage, program execution, is where students are deployed to the village location to carry out village observations and run a program to collect data as material for the design of the Village Information System by training village officials related to the management of SID. The third stage is to carry

out monitoring and evaluation. At this stage, monitoring the program implementation results will be carried out. The fourth stage is program improvement, namely cleaning up from the results of the implementation, and the fifth stage is planning the follow-up of program implementation in the future.

#### **RESULTS AND DISCUSSION**

Village development implementing a Village Information System is developed and managed to facilitate access to information by the community and other interested parties (Nugroho & Rohimi, 2020). Developing SID is a form of improving public services, increasing efficiency, transparency, effectiveness, and accountability in government administration (Rozi et al., 2017). The application of SID will be beneficial for villages in developing BUMdes (Village Owned Enterprises) to increase Village Original Income (PADes) (Fitri et al., 2017). The implementation of community empowerment through actual lecture activities at the University of Muhammadiyah Yogyakarta supports digitization in the Trimulyo Village towards the progress of village potential, including:

##### **Trimulyo Village Profile Book Making**

Based on the Minister of Home Affairs Regulation Number 12 of 2007 concerning Guidelines for the Compilation and Utilization of Village and Sub-District Profile Data requires the implementation of National Village and Sub-District Profile data-based development (Banyumanik, 2018). The village profile contains village potential and the level of village development that can be used as data for developing village potential (Siregar & Sundari, 2016).

Data digitization will facilitate updating data regularly and accurately as the times evolve (Effendi & Tasrif, 2019). Community

empowerment is needed in planning, implementing, monitoring, and evaluating the potential utilization of each village (Prasetyo, 2017). The implementation of the actual work college program is felt directly by the community and the local government. The actual work course is designed to advance the area. Preparing the Trimulyo Kalurhan profile book is the first step to exploring the village's potential and summarizing its uniqueness and potential to be developed to generate economic improvement. The profile of the Trimulyo Village provides information, namely: Village history, geographical conditions, economic level, education, and information on the village's potential for both tourism and culture.



Figure 1. Trimulyo Village Profile Book

The preparation of the village profile aims to summarize village information, facilitate website creation, and provide more comprehensive information to the general public. Tourism has a culinary wealth, and MSMEs is a strategy for building village progress. The potential of the village of Kalurahan Trimulyo, namely: Batik nitik, watu ngelak, and cave permoni can be introduced through the progress of digitalization. Village

information about Kalurahan Trimulyo is a village that has a lot of history. Trimulyo Village is a combination of 3 sub-districts: Mblawang, Ponggok, and Karangsemut villages. 5 of 1948, the characteristics are different and united in Trimulyo Village.

Trimulyo consists of two syllables: Tri means three, and Mulyo means mulya. The name Trimulyo Village is expected to be a noble village and continue to be better. The vision and mission of Trimulyo Village are to make Trimulyo a developed, prosperous, and independent village. The vision and mission of the Trimulyo Village is the realization of a prosperous or noble society. The Trimulyo Village profile book says that Trimulyo has a typology of animal husbandry, work and small industry, rice fields, and trade. The profile book conveys information and wealth and can be used as a guide for making decisions on follow-up plans.



Figure 2. Potential of Trimulyo Village

Watu Ngelak is a legendary tourist destination with holes that do not refuse water to enter and flow into underground rivers. Making a profile of the Trimulyo Village describes the potential of the village, such as

nitik batik, a typical batik of Trimulyo Village in the form of spontaneous dots, and its uniqueness can be widely recognized. Community empowerment puts forward the creative economy to explore the community's potential, creativity, and innovation (Andayani et al., 2017).

Permoni Cave is a tourist destination in Trimulyo Village, with a legend that is interesting to visit. The Trimulyo Village logo can be introduced to the general public by creating a logo design depicting the Trimulyo Village. The village of Trimulyo presents the canting of nitik batik, which is unique and superior to other batiks. Canting batik nitik is known to have four parts so that it is displayed in the logo concept.



Figure 3. Trimulyo Village Logo

The logo display of Trimulyo Village has three color forms; green depicts the vision and mission of Trimulyo Village by combining three villages into one. The shape resembling a water drop below means or symbolizes water as one of the main livelihoods in the Trimulyo Village, which is passed by the Opak River and the Code River. Green and blue colors represent prosperity and progress. The logo is made attractive to demonstrate the potential and advantages of Trimulyo Village and is packaged to brand Trimulyo Village and improve village progress. Implementing the Real Work Lecture (KKN) of the University of Muhammadiyah Yogyakarta, from creating village profiles to making Trimulyo Village

logo designs, helps advance Trimulyo Village so that Trimulyo Village can be widely known for its village products and potential.

village's potential; through the logo, it can generate ideas for the application of the logo to several product designs such as T-shirts, lanyards, masks, and application the logo on village cars, polo uniforms, standing roll banners, stationery kits, pins, stamps, tourist entrance tickets, and tote bags. The implementation of the Real Work Lecture program provides support for the progress of Trimulyo Village. Changes are needed in development and competition to have an existence in maintain the brand and development.

### Making a Kalurahan Website Prototype

The Village Information System (SID) application aims to develop village quality and is the application of e-government principles to form electronic-based services (Dhaniawaty, 2020). Village Information System Development (SID) manages Village Websites that can explore and develop the potential of each village (Rozi et al., 2017).



Figure 4. Website Prototype of Trimulyo Village

Making a Prototype is the initial process of developing an information system in Trimulyo Village. A prototype is an initial model or example of a system design that is made to test the concept and find out whether the concept that has been presented can be



implemented or to test market tastes. The Muhammadiyah University Real Work Lecture (KKN) program implemented a village website prototype that was useful for the Trimulyo Village.

The prototype was made to display important information related to the village: Showing the profile of the district of Trimulyo, news of the village of Trimulyo, history of the village of Trimulyo, vision and mission and structural institutions, administrative services containing complaints and village government contacts. Making a prototype of a village website in Trimulyo Village is an initial effort to realize village transparency in compliance with government regulations.

### Social Media Design Making

Design and branding techniques are needed to add creativity to a marketing process to make it more attractive (Muksin et al., 2019) Training using social media applications such as Facebook and Instagram produces outputs for activities, namely using social media as a media for product sales advertising (Sukmasetya et al., 2020). The implementation of technology-based KKN Muhammadiyah University develops media that can be used as a source of information delivery, especially information about villages with various assets. Social media such as Instagram and Facebook are containers of product marketing media, so skills are needed in managing and developing media.

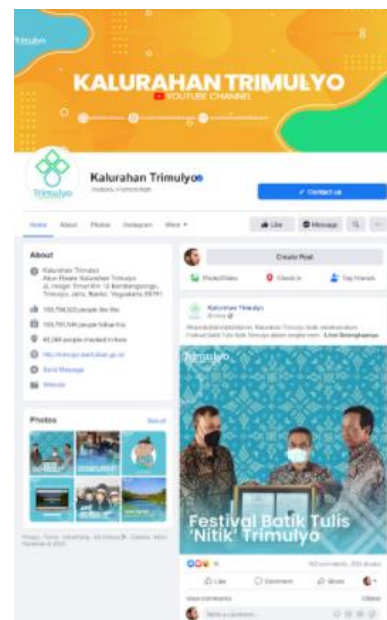


Figure 5. Trimulyo Village Facebook Display Design

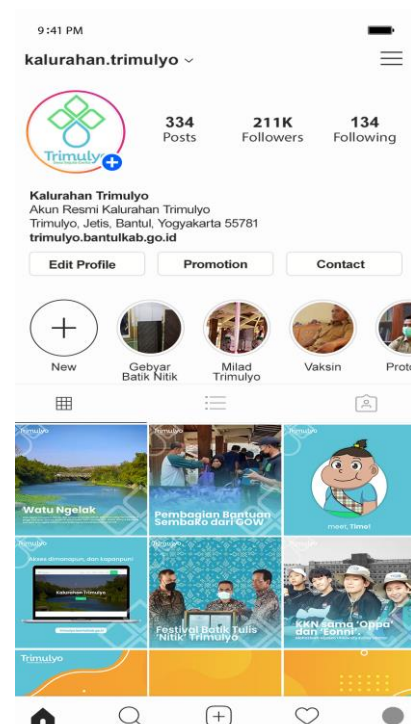


Figure 6. Trimulyo Village Instagram Display Design

Information positively impacts the Trimulyo Village to develop with its potential. Social media such as Facebook and Instagram will maximize the marketing of village products to attract consumer interest

and to visit for tours. Making Instagram and Facebook social media designs in Trimulyo Village will be an example of a more attractive appearance on social media. Social media display designed by University of Muhammadiyah Yogyakarta students for digital-based service is an essential program for the village due to the lack of optimization of both the information system and marketing strategy.



Figure 7. Trimulyo Village Tourism Ticket Design

Actual Work Lecture (KKN) activities on the potential of Trimulyo Village by making tote bag designs, tourist entrance tickets, village stamps, pins, letter mockups, t-shirt designs, and mask mockup designs. Designs to identify potential Callahan, such as batik nitik, are typical batik from Kalurahan Trimulyo in the form of spontaneous dots, and their uniqueness can be widely recognized. Watu Ngalak is a legendary tourist destination with holes that do not refuse water to enter and flow into underground rivers. Permoni Cave is a tourist destination in the Trimulyo Village with many exciting legends for tourists. Social media Facebook and Instagram with display designs made in the Technology-based University of Muhammadiyah Yogyakarta Real Work Lecture (KKN) program will be used as examples of displays that are useful in developing the Village Information System

(SID) and introducing potential in the Trimulyo Village.

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### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusion

The implementation of the Real Work Lecture (KKN) program at Universitas Muhammadiyah Yogyakarta based on Information Technology (IT) resulted in a social media design and a prototype website design for the Trimulyo Village, which helped make critical information related to the village by including the Trimulyo area profile, Trimulyo Village news, Trimulyo Village history, vision-mission, and structural institutions, administrative services containing complaints and village government contacts. The results of the KKN implementation at the University of Muhammadiyah Yogyakarta produced a profile book of Kalurahan Trimulyo, a village information system design (SID) through a social media display design and a prototype website for the village.

#### Suggestion

The Village Information System (SID) design in Trimulyo District can be followed up on applications on social media displays and village websites to provide accurate and optimal information and services.

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