ALI DIGITALIZATION (ADMINISTRATION, LITERACY, AND INFORMATION) TOWARDS SMART SOCIETY 5.0 IN NURUL HIDAYAH SUKAHARJA ISLAMIC BOARDING SCHOOL, CIJERUK BOGOR

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ABSTRACT

The era of industrial revolution 4.0 that eroded human's role has passed, and now we are introduced to the next concept of smartsociety 5.0. Humans are again being the center of civilization. However, they are required to master technology. In reality, not all Indonesian citizens are able to keep up with the demands of this era. *Pesantren* Nurul Hidayah is situated in Sukaharja Village, Cijeruk, Bogor. It is one of the community groups that is still lagging behind with technological advances. Yet, *Pesantren* Nurul Hidayah is still experiencing three main problems regarding the use of technology: the manual administration process, lack of digital literacy, and the conventional dissemination of information. Based on the problems identified, this community service proposed to offer the solution to digitization by three aspects: administration, literacy, and information (ALI). Based on the analysis of the situation and the existing problems in the *Pesantren,* this community service activity offers the following solutions: digitization of administrative process, digitization of financial system, and digitization of information. The target achievement for this problem is to create a simple computerized system for integrated administrative and financial records. This community service activity also optimizes the information dissemination, publications, and documentation regarding the Nurul Hidayah Islamic Boarding School. To achieve these predetermined targets, implementation methods have to be prepared. It is divided into six stages of activities, namely preparation, digitalization, seminars, training, mentoring, and at the end an evaluation will be carried out. The synergy of expertise of the proposing team is expected to be able to provide input and carry out digitalization activities at the Nurul Hidayah Islamic Boarding School.

Keywords: digitalization, literacy, administration, finance, information.

1. INTRODUCTION

The era of globalization has a powerful influence on all dimensions of public life that leads to social changes, both positively and negatively. The development of technology makes society must accept the presence of structural problems that then penetrate all aspects of life (Adhiarso et al., 2019). Artificial Intelligence (AI) is widely developing to facilitate human work. As a consequence, human's role has been disrupted and is called the Industrial Revolution 4.0. In 2019, Japan initiated a new concept of Smart Society 5.0. The concept of Smart Society 5.0 emerged as a solution due to the adverse effects of disruption that increasingly shrink the role of humans in life. The long-term impact of this disruption is feared to erode human identity. The era of Smart Society 5.0 tries to restore humans as the main component in living life. People have to compete with the presence of Artificial Intelligence (AI) encourage todays' society to become an advanced society in terms of human resources and the use of technology (Rahmawati et al., 2021).

Islamic boarding school (*pesantren*) is the forerunner of Islamic education institutions in Indonesia. The initial attendance of the *pesantren* was estimated from 300-400 years ago and reached almost all levels of the Indonesian Muslim community, especially in Java (Abdullah, 2020). Nurul Hidayah Islamic Boarding School was built in 2005, yet it does not have official permission from the government. This boarding school is only in the form of the Islamic forum where people gather and learn about Islam (*Majelis Taklim*) and as a place of learning for children in the surrounding environment. This *pesantren* which is located at Kp. Sirna Sari RT 007 RW 004, Empang, South Bogor was built in stages. The founder, Drs. Ece Hidayat believes in the importance of developing human resources for the *ummah*.

At that time, *Pesantren* Nurul Hidayah did not have an operational permit because the location was on the Indonesian Railways Company's (PT. KAI) Property. In early January 2019, PT KAI began implementing the Bogor-Yogyakarta railway construction plan. So that caused the *Pesantren* Nurul Hidayah to relocate. The *Pesantren* building then moved to Sukaharja Village, Cijeruk District, Bogor Regency. Now, this Islamic boarding school has a recognized permit by the Ministry of Religious Affairs with the registration number 510032011505. This Islamic boarding school also houses two other educational institutions, The Quran Education Park and *Raudhatul Athfal* (Islamic Kindergarten).

The community around the boarding school is very enthusiastic regarding the existence of this educational institution. When the *Pesantren* was open at first, 71 students from the surrounding environment participated as students in the boarding school. In detail, 23 students recited the Quran, 14 students at the *Raudhatul Athfal*, and 34 students at The Quran Education Park. Although the location of the Islamic boarding school is surrounded by productive land such as rice fields, plantations, and ornamental plants, the majority of the community's economy is still in the lower middle class. The boarding school tries to continue providing the best educational facilities by voluntary fees. The students fostered in this boarding school only give donations of IDR. 30,000 each month.

Furthermore, of the reestablishment and limited human resources, this Islamic boarding school still faces several obstacles in the administrative sector such as in recording the Educational Development Contribution Fee (SPP), sometimes there is a difference between the student's tuition card record and the tuition payment ledger record by the finance staff. This can happen because when students pay tuition fees, financial staff miss recording. The large number of students paying tuition at one time is troublesome for staff because it must be recorded in handwriting. Finance staff also have to write the same thing many times, students' tuition cards, petty cash, and the general ledger. These activities make administrative work cannot be done quickly and effectively.

Another hassle due to manual recording is when the finance staff has to make receipts. Every student who pays instalments for clothes, books, or other fees must be given a receipt as proof. A case that often occurs is the loss of receipts by the students when going to pick up books or clothes. The financial staff was forced to reopen the general ledger to check whether the student had paid off or not. This causes the service to only take some time because everything is done manually.

Figure 1. Administration Records

Figure 2. Registration Brochure

Besides the financial recording issue, so far, the way to disseminate information regarding the Nurul Hidayah Islamic Boarding School has not utilized information technology. All information is disseminated conventionally by printing brochures and disseminated directly to people who inquire. The *Pesantren* Nurul Hidayah does not have a website or social media to spread information to the community. The society knows the existence of the *Pesantren* Nurul Hidayah from word of mouth from alumni or residents who know first. The teachers also introduce it through the Islamic forum where people gather and learn about Islam (*Majelis Taklim*). Figure 2 shows an example of a printed brochure.

2. METHOD

Community empowerment is about working in ways that empower people – ways which mean that people feel 'confident', that they – and the groups they are involved in – are inclusive and organized, that networks are formed, are cooperative and support each other and – ultimately – they are influential. (*Community Empowerment*, 2023)

Community service activities of Nurul Hidayah Islamic Boarding School, Cijeruk, Bogor Regency in Digitalization ALI (Administration, Literacy & Information) consist of several activities that can be described through the following stages.

First Activity: Preparation

The first stage is to make initial preparations. The preparation stage began by approaching the Chairman of the *Pesantren* Nurul Hidayah Foundation. After approachment, the next step is to arrange a schedule to hold a meeting with the Chairman of the *Pesantren* Nurul Hidayah.

In this meeting, observations made by interviewing the Chairman of the *Pesantren* Nurul Hidayah Foundation, starting from the organizational structure of the foundation, the current conditions in the *Pesantren*, teachers' expertise, hassles and problems faced by the *Pesantren* Nurul Hidayah so far and the current condition of the *Santri*. In addition to

interviewing the head of the Nurul Hidayah Islamic Boarding School Foundation, in this preparation stage, interviews were also conducted with the *Pesantren's* residents, especially the existing teaching staff and the *Santri*. The objective is to find and collect information related to the current *Pesantren's* condition so that the problems and the obstacles faced by the *Pesantren's* residents can be analyzed.

Second Activity: Digitalization

By digitizing work, knowledge may be better utilized (Bouncken & Barwinski, 2021) resulting in increased productivity (Chou et al., 2014) and efficiency (Porter & Heppelmann, 2015). In short, digitalization should lead to improved performance, such as achieving set objectives or enhancing the expertise of individuals and organizations (Vuori et al., 2019).

The second stage in community service is to digitize administrative processes and information in the *Pesantren* Nurul Hidayah. The administrative process at the partner's location is still running manually, such as *Santri's* financial records and *Santri's* administrative records. Furthermore, the information dissemination regarding the *Pesantren* Nurul Hidayah is currently running manually by word of mouth or offline flyers.

The manual administrative process and manual dissemination of information certainly cause problems. Due to these reasons, in this widespread digital era, the digitizing administration process and dissemination of information is needed by the partner. Digitization of these processes including using financial recording applications and administrative records is expected to facilitate the partner in managing the institution. Dissemination of information about pesantren also needs to be digitized so that the *Pesantren's* information is more easily conveyed to the public via the internet by building a website for the partner and creating a social media account.

Third Activity: Seminar

The third stage in community service is to provide a seminar for the *Pesantren* Nurul Hidayah residents. Sharifa concluded based on her study that the majority of students perceived seminars as a good method of teaching that engaged them actively in critical thinking by raising questions on literary texts, sharing ideas, and improving their communication and presentation skills (Al'Adawi, 2017). The background of this activity is based on today's information and communication technology that is developing very quickly. Thus, it makes the information easier to convey and access through mobile devices such as smartphones, especially when sharing activities on social media. Yet, the development of digital technology is not balanced with the development of digital technology knowledge or literacy. For this reason, this seminar activity will be delivered in the form of a digital literacy seminar. This literacy activity will be tailored to the needs of the *pesantren's* residents to be more digitally capable. Participants also will be provisioned to distinguish misinformation, dis-information, and mal-information with various examples. Misinformation is misinformation spread by those who believe it to be the truth. Dis-information is misinformation that is deliberately spread (Witarti & Windarto, 2022).

To implement a seminar activity, there are some stages to run, first by preparing seminar material, then preparing facilities and infrastructure for the seminar activity, and last is the implementation of the seminar. The participants must also fill out a pre and post-test regarding digital literacy material so that the result can be quantified to find out their knowledge before and after participating in the activity.

Fourth Activity: Training

The fourth stage in this community service is to provide training related to information technology. Training will be provided for administrative staff in *Pesantren* Nurul Hidayah to use administrative applications. This is done so that the digitization process of administrative activities and financial records in *Pesantren* Nurul Hidayah can run as well.

Before the implementation of the training stage, the proposer team made training materials and provided modules. The proposer team assisted by the management of *Pesantren* Nurul Hidayah prepared facilities and infrastructure for training activities. To run the training, it needed computer devices that had been installed with the application. The management arranges the schedule for the implementation of training for staff so that it does not interfere with the learning process.

Fifth Activity: Mentoring

Community empowerment is aimed to prepare the community to realize their progress, independence, and welfare in an atmosphere of sustainable social justice. The implementation of empowerment itself varies greatly depending on needs over time. The current trend of community empowerment programs is to put the community as the main actor so that the community itself can determine its own needs and priorities.

Community empowerment refers to the process of enabling communities to increase control over their lives (WHO, 2023). Community empowerment is a social activity, in which the residents of a community organize themselves in

the planning through collective action there by to solve social problems or meet social needs in concerning the availability of local resources (Rakib, 2016). The main objective of community empowerment is to strengthen the power of the poor and weak groups (Sarjiyanto et al., 2022).

The next stage of the method used in community service is mentoring. Mentoring is often discussed as a means to increase desirable behaviour (e.g., academic performance, job performance) and decrease undesirable behaviour (e.g., school drop-out, substance use). In fact, formal mentoring programs for youth and college students often target "at risk" individuals (Rhodes, 1994). The main purpose of mentoring is to empower and develop the ability and potencies of human resources, especially the managers, teachers, and staff in the *Pesantren* Nurul Hidayah.

Sixth Activity: Evaluation

In the final stage of the community service, evaluation will be carried out. Community service programs that have been running, certainly have a positive and negative impact on the target. Negative impacts on targets should be certainly minimized and avoided so that the programs are in accordance with the objectives. Therefore, it is necessary to conduct an evaluation to determine whether the program that has been implemented will be continued, need improvements, or should be terminated. The intent is to empower the members of those communities to get benefits from the evaluation process and results (Mertens, 2018).
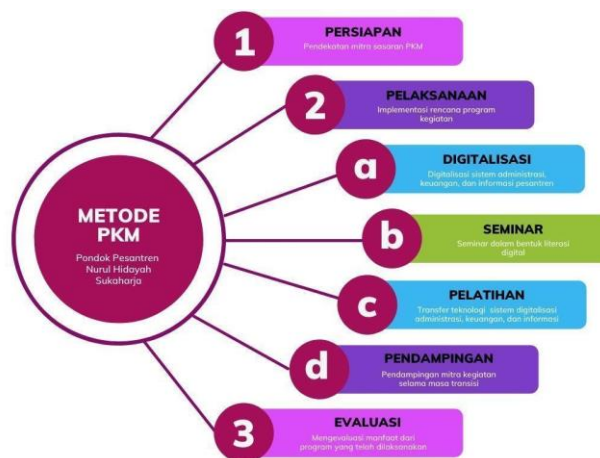

Figure 3. Linear Diagram Explaining Stages to Implement Community Service Activity

3.   RESULTS AND DISCUSSION

Administration: Simple Bookkeeping Training

Currently, the *Pesantren* Nurul Hidayah only has three staff who handle all the administration stuff. These staff are in charge of recording financial administration, and the others do the filing. It will cause the administrative work can't be done quickly and allow incorrect recording to occur. In the future, the administrative work will be computerized using the Excel application. This application is used to record simple bookkeeping. The administrative staff in the *Pesantren* Nurul Hidayah only need it to record the income and the expenses.

By computerized recording, hopefully, the storage containing *Santri's* documents and files will be more neatly organized. Thus, it can minimize the possibility of tucking *Santri's* data, and the search process will get faster. The problem of data discrepancies could also be minimized so that the recording of Education Development Contributions (SPP) no longer has differences between *Santri's* tuition cards and the general ledger.

When students pay tuition fees, financial staff can immediately input or record the receipt of these funds. The number of students who pay tuition fees at one time can be processed faster because it is directly input on the computer and no longer done by handwriting. A staff of finance also does not have to write the same thing repeatedly on student tuition cards, bookkeeping, and general ledger. It can get administrative work done quickly and effectively.

Another hassle due to manual recording is when a finance staff has to make receipts. Every *Santri* who pays instalments for clothes, books, or other dues must get a receipt as proof. Cases of missing receipts by the *Santri*, when they are going to pick up books or clothes, can also be tracked back by computer program since their data had been recorded.

In the field of simple bookkeeping digitization, there are several activities carried out. First, the activity begins with learning the recording process or system before bookkeeping training. It aims to understand how to do recording and

the processes involved in bookkeeping. The last is understanding the background of the admin or staff who will use the bookkeeping. The goal is to find out the knowledge and skills they have in bookkeeping.

Furthermore, interviews are conducted to identify needs in bookkeeping. By conducting interviews, information regarding special needs that meet in the bookkeeping system can be collected. After that, a simple bookkeeping program using Microsoft Excel was created as an efficient and accurate tool or system in bookkeeping.

After the bookkeeping training program is accomplished, then the training activities are carried out for admins or bookkeeping staff. This training aims to provide understanding and skills to them in using the bookkeeping digitally.

Finally, an evaluation should be accomplished to understand the training material. This evaluation aims to ensure that trainees have a good understanding of the material that has been delivered and can implement it correctly in bookkeeping. By carrying out all these activities, hopefully, the administration of simple bookkeeping digitization can be carried out efficiently and effectively by the staff at the *Pesantren* Nurul Hidayah.

Figure 4. Training to admin/bookkeeping staff

Figure 5. Digital Literacy Briefing

Digital Literacy: Utilizing Digital Media

The digital literacy seminar delivered by Denik Iswardani Witarti, Ph.D. themed "Santri Melek Digital" or the *Santri* are Digital Literate. The presentation began by explaining the occurrence of digital transformation and the rapid process of changes in technology, information, and communication. This progress requires the participants to master technology and internet knowledge. Digital culture becomes formed when humans in all fields use the internet to interact with each other.

The *Santri* were also given knowledge about the benefits of using the internet. The presentation material shows some examples of how the internet can be handy for communicating and conveying information more effectively. Moreover, the internet can also be useful to facilitate the learning process, which is well known as edutainment. It makes the learning process more fun. The presentation material also featured several examples of accounts and posts on social media that included edutainment. The internet also can be used as one of the sources that help teachers and the *Santri* to find additional references.

However, the development of digital media and the number of social media channels bring many consequences that must be watched out for. The *Santri* were reminded of the possibility of cyberbullying, the rise of hoaxes, and internet addiction that ultimately forms antisocial attitudes.

The *Santri* were also trained to use their own devices like mobile phones. So far, they claim that they are only using their devices to play online games. This community service activity provides training to create works that are upload able on digital media channels, especially their social media. The videography and editing training is guided by Fernando, a Master of Communication Science student who is also a media practitioner. They were taught the stages of making a work and asked to practice directly to make videos.

Figure 6. Videography and Video Editing Training

Figure 7. Examples of *Santri's* Work

The *Santri* who attend the workshop are 29 people, which are divided into seven groups. Each group is free to determine what story to tell on the video, yet still related to the *Pesantren* and its environment. The students were very enthusiastic about doing the tasks given.

After discussing the video theme and task distribution, they continued the production process. Some groups even captured some videos and pictures outside the *Pesantren*.

The last session of this activity was the presentation of *Santri's* work. Each group presented a video explaining the concept they wanted to convey. Finished works also got comments from the trainer to improve their highlighted messages. Figure 7 is an example of some of *Santri's* works submitted for assessment.

Digital literacy activities in the *Pesantren* run out as planned. The *Santri* also claimed to be very enthusiastic about the video editing workshop. They were more enthusiastic about learning using their own devices, so it is not just to play online games. The materials will be used by the institution to carry out other literacy activities in other community groups around the area.

Information: Website Development

The implementation of community service activities in *Pesantren* Nurul Hidayah was held on Sunday, July 2, 2023. The digitization of information and news about the *Pesantren* is the main focus to convey relevant and significant messages to the general community. It is due to technological use, including the internet, that it is a very effective means to reach a wider audience. Therefore, to achieve this goal, a custom website of *Pesantren* Nurul Hidayah has been developed.

The first step taken in the development of this website is design. So, it will be easy to operate by a staff who is in charge of managing and operating the website. The success factor of developing the website not only depends on an attractive design but also on the ability of users to manage the content to be displayed.

Intensive training to operate and fill in the content on the website has been done after developing the website. The training covers the necessary aspects of running the website, from using the interface to the ability to upload and manage news and information relevant to activities in the *Pesantren* Nurul Hidayah. As a result of this training, a selected staff was chosen to operate the website by filling the content with targeted news and information.

The existence of this website has a significant role in digitizing news and information in *Pesantren* Nurul Hidayah. By the existence of the website, *Pesantren* Nurul Hidayah can directly connect themselves to the general audience through the internet and can provide the latest information relevant to activities, programs, and the latest news in the *Pesantren*. In today's digital information era, people are more easily looking for news and information through the internet, so the presence of this website provides easy access to information for people who want to get to know and engage more deeply with *Pesantren* Nurul Hidayah.

In conclusion, website development for the *Pesantren* Nurul Hidayah is a suitable and relevant step. Through this website, the *Pesantren* can expand the impact of their activities by delivering relevant news and information to the general community. Figure 8. shows a screenshot of the developed website.

Figure 8. Website Home Page

4. CONCLUSION

Community service activities that have been conducted in the *Pesantren* Nurul Hidayah within the scope of digitizing Administration, Literacy, and Information are training in simple bookkeeping, the use of digital media, and developing a website has provided significant benefits for the *Pesantren* Nurul Hidayah.

In the administration aspect, simple bookkeeping training makes a significant contribution to improving the staff's understanding of financial management and administration. The implementation team has provided base knowledge about simple bookkeeping through the Microsoft Excel application, including recording income and expenses, preparing simple financial statements, and the importance of maintaining order by priority. With this understanding, it is expected that staff can manage finances more efficiently and transparently.

In the digital literacy aspect, this service provides understanding and skills to the *Santri* regarding the use of digital media because they have to be able to use information and communication technology wisely. The service team has provided knowledge about the use of digital media, including the use of the Internet, social media, and other digital platforms to obtain information, communication, and self-improvement. By obtaining digital literacy, *Santri* can be actively involved in the digital world and benefit from this technology.

In the information aspect, website development for the *Pesantren* Nurul Hidayah is relevant to the main goal of this service. This website is an important source of information for the community, both about the *pesantren's* activities and its various programs and events. From the website, the public can easily access the latest news, activity information, and knowledge provided by the *Pesantren*. This provides easy access to information, increases community participation, and helps the *Pesantren* to convey important messages more effectively to audiences.

Lastly, through these service activities, the whole team has made a meaningful contribution to increasing digitalization regarding administration, digital literacy, and access to information. The knowledge and skills that have been given were expected to gain benefits for the *Pesantren* Nurul Hidayah in general and its Santri, specifically in financial management, the use of digital technology, and easy access to information.

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