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The Urgency of Digital Villages in Overcoming Blank Spots in the 3T Area

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Abstract
Taar Village is one of the villages in South Dullah District, Tual City, Maluku. Geographically, Dessa Taar is located in South Dullah District, Tual City, a distance of 2 km from the center of Tual City, Maluku. The uniqueness of Taar Village is that it is famous for a traditional ritual event called the Opening Sasi Hoat or Teluk UN Tradition, the view of Tavidu Bay Beach and is also famous for the taste of Baronang fish (the local name for Samandar Fish) and the Nudibranch species. Taar Maluku Village can be reached in approximately 5 minutes using land transportation and excellent two-lane highway access. When discussing with the Village Head and Taar Maluku Village officials, they encountered a number of problems regarding the blank spot area problem faced by the people of Taar Maluku Village as well as being the reason why it was still a little difficult for the community to get the signals used for communication. The problem in question is the lack of information and education regarding the Urgency of Digital Villages in Overcoming Blank Spots in the 3T Era. Areas that are still experiencing Blank Spot Areas, especially in Taar Village, South Dullah District, Tual City, Maluku. To overcome this problem, an alternative solution that can be implemented is the author discussing with village officials and suggesting the use of Village Digitalization to be able to overcome the Blank Spot Area in Taar Village, South Dullah District, Tual City, Maluku, so that Taar Village can become a Digital Village and get a signal to communicate as well as in big cities. Therefore, the aim of this community service is to see the potential of digitalizing villages to become digital villages in improving community welfare in Taar Village, South Dullah District, Tual City, Maluku. To obtain the data used were observation and literature study. This service activity is an educational effort to increase the digitalization of Digital Villages which can improve the welfare of the community in Taar Village, South Dullah District, Tual City, Maluku. As a manifestation of the author's thoughts, there are several efforts and breakthroughs offered, namely providing education on the use of Digital Village Digitization to overcome Blank Spot Areas in the 3T area in Taar Village, South Dullah District, Tual City, Maluku so that it can help overcome Blank Spot Areas and become a solution for village communities. Taar has his right as a citizen to get a good signal when communicating in Taar Village, South Dullah District, Tual City, Maluku.
Keywords : *Taar Village, Blank Spot Area, Digital Village*

INTRODUCTION

In this modern era, there are still many areas in Indonesia that have not been touched by technology. The progress of information and communication technology today cannot be denied, everything is developing rapidly so that it requires everyone to follow it. However, not everyone can keep up with current advances and technological developments, especially for people who live in remote or rural areas that are not connected to electricity networks or the internet. As a consequence, many regions in Indonesia are still blank spot areas (Damara, 2024).

According to Saputra (2018) Blank spot areas are places that do not have a signal due to the absence of telecommunications towers and High Voltage Air Lines, making it difficult to use devices to communicate. Areas in Indonesia that still have many blank spots are often known as 3T areas. Underdeveloped, frontier and outermost areas are defined based on social, economic, regional and cultural conditions (inter and intraspatial functions in terms of natural aspects, human resource aspects and population infrastructure aspects). community economy, human resources, fiscal capacity, accessibility and regional characteristics (Pramadhani, 2022).

The 3T region is an Indonesian region that has geographical, social, economic and cultural conditions that are less developed than other regions on a national scale. The 3T area is also the gateway to Indonesia's borders with neighboring countries. Examples of 3T areas in Indonesia are West Nusa Tenggara and Papua (Shaina, 2023).

Information technology and telecommunications have become part of our daily lives, all forms of devices, both hardware and software, have become things that we cannot separate from ourselves, the need for information and communication is so great that it has not only hit big cities but to rural areas, but because the distribution of telecommunications equipment, especially those built by communications operators, is not spread to remote areas, usually due to economic factors such as commerciality and unprofitable return on investments, many operators are unwilling to install communications equipment in these remote rural areas (Efendi, *et al.,* 2023).

According to Susilo (2024) in solving the blank spot problem, the government has launched the Digital Village program. Digital village is a concept that combines information and communication technology in public services and economic activities in villages (Mariyadi, 2023). The initial effort made by the government in implementing the digital village program was to intensify the development of telecommunications and information infrastructure (Tirayoh, *et al.,* 2023). This is in line with the mandate of the Omnibus Law on Job Creation regarding economic development and ease of doing business (Kemenpanrb, 2020).

According to Elvan (2022), the success of a Digital Village cannot be separated from the condition of the village and the steps or strategies implemented. In making a village a Digital Village, the government needs to pay attention to several things such as:

1) Conduct socialization
2) Pay attention to goals and interests
3) Building Infrastructure
4) Building village technology
5) Provide smart devices.

According to Firman (2023), if the Digital Village Program is successfully implemented, the economic conditions of Indonesian villages will develop rapidly. This is because Digital Village pays attention to fundamental things to overcome trade problems, namely communication facilities. The existence of digital villages will encourage village communities to utilize internet-based digital technology in their economic activities.

Digital Village is important to overcome the blank spot problem, which is a situation when two or more way communication via gadgets is disrupted. Through Digital Village, the development of communication facilities is carried out more evenly so that technology can be utilized by villages, especially in the 3T area. In this way, it is hoped that the economic development of rural communities will run smoother (Anthony, 2023).

When the author carried out service in Taar Village, South Dullah District, Tual City, Maluku, the author encountered problems experienced by the community in the Village, namely the lack of information and socialization that Village Digitalization could be utilized by building a

Digital Village which could overcome Blank Spots so that Taar Village could get a reliable signal network. It is good to be able to communicate smoothly and make Taar Maluku Village a more advanced village following today's modern times.

Therefore, the author believes that by holding socialization about the urgency of creating a Digital Village in Taar Village, South Dullah District, Tual City, Maluku, this will overcome the Blank Spot Area to become a more advanced and modern village because if you look at the potential, Taar Village is a potential tourist village. with beautiful natural attractions. It would be a shame if natural beauty is not directly proportional to the progress of telecommunications and information in the Taar Village area, South Dullah District, Tual City, Maluku.

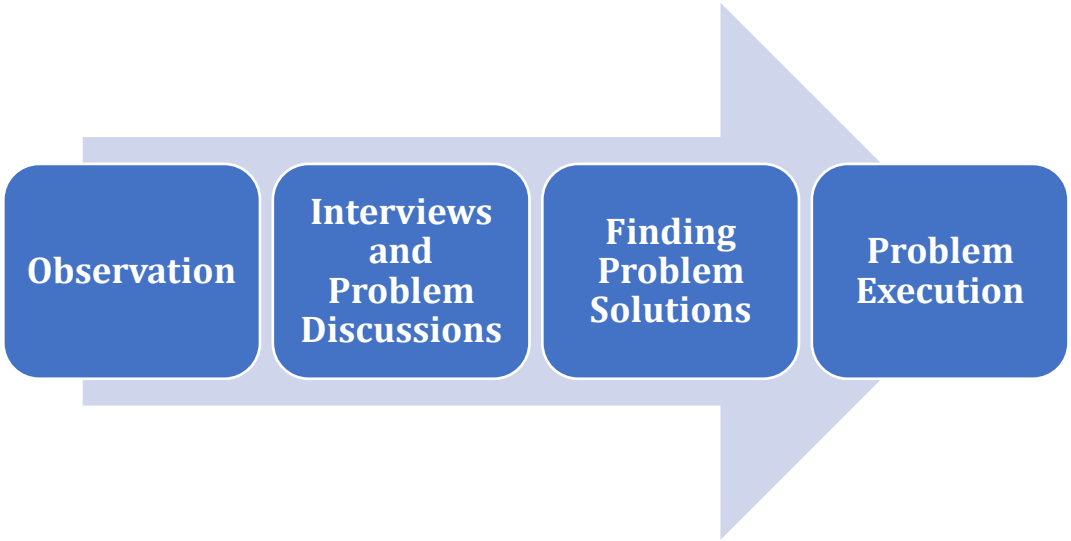
METHODS

During discussions with members of the Taar Village apparatus, South Dullah District, Tual City, Maluku, the method of activity carried out was theory and direction to the local community and introducing the benefits of a Digital Village which was able to overcome Blank Spot Areas in the village. From the observations made, it can be concluded that the community does not fully know that the benefits of Digital Village Digitalization can overcome Blank Spot Areas. The problems presented in this method are as follows:

1. Benefits of Digital Village Digitalization
2. Solution on how to deal with Blank Spot Areas in Taar Village, South Dullah District, Tual City, Maluku

The important role of local government in helping to overcome Blank Spot Areas by digitalizing villages to become Digital Villages properly and optimally, so that they can provide knowledge and input by overcoming Blank Spot Areas in the Village, so that village residents get their rights to obtain technology and information like cities. Today's modern cities or villages make residents connected to the electricity network and the internet.

Table 1
Problem discovery and problem solutions



DISCUSSION

Digital Villages is a program launched by the government to minimize information gaps in rural areas, by utilizing developed information and communication technology. The digital village platform is focused on various information, service and economic needs. The government recommends villages to evolve into digital villages. However, the existence of the internet will not immediately create a digital village without the support of several things that must be prepared (Elvan, 2022).

As a very large archipelagic country, the Indonesian government continues to make

efforts to equalize development in a number of regions, especially archipelagic regions which geographically have a number of obstacles so that they have not had much development and are lagging behind other regions. The government's program to overcome this is with the concept of developing disadvantaged, frontier and outermost areas (3T). The 3T region is an Indonesian region that has geographical, social, economic and cultural conditions that are less developed than other regions on a national scale. The 3T area is also the gateway to Indonesia's borders with neighboring countries (Putera, *et al.,* 2018).

3T areas are determined by the government based on certain criteria, namely: First, Economy: including poverty level, economic growth, per capita income and human development index. Second, Community and human resources: includes the level of health, education, population and local wisdom. Third, Facilities and infrastructure: includes the availability of basic infrastructure such as roads, electricity, clean water, telecommunications and transportation. Fourth, Regional financial capacity: includes potential for local revenue, capital expenditure and fiscal independence (Ombudsman, 2023).

According to Purnamasari *et al.* (2020) Vice President K.H. Maruf Amin. According to him, in implementing the Digital Village program there are several things that need attention, namely:

1. Network provision, such as Palapa Ring with a 5G network or fast internet
2. Providing devices, such as giving gadgets to facilitate village communities
3. Providing applications according to the context of the population in the area concerned, such as adapting to the potential of human resources and natural resources of the village, wisdom and other cultural characteristics of the community.
4. Assistance to residents, such as holding outreach related to the Digital Village

By overcoming the 3T Era Blank Spot in the Village by making the village a Digital Village. Digital Villages are able to act as catalysts for improving public services and the economy. Digital villages are a program concept that implements government service systems, community services and community empowerment based on the use of information technology. This program aims to develop village potential, marketing and accelerate access and public services. In a digital village, public services will be digital by being connected via a wireless network (Desanesia, 2020).

Digital services will encourage improvements in public services in villages and make it easier for village officials to evaluate and improve services using the database they will have (Pangemanan, *et al.,* 2021). In an economic context, digital villages can be used as a catalyst for improving village economic performance and empowering the economy of village communities. Digital villages are planned to have websites and social media accounts for promotions and news, e-commerce systems and applications that suit the character and economic potential of each village (Ramadhan, 2023).

In this modern era, communication is a very important part in all aspects of life, social, economic and other. Since the beginning, the telecommunications system has been the part that provides services to users in interacting (Farhan, 2023). This is accompanied by the rapid progress of cellular technology and has now entered the fourth generation where LTE technology has become the choice of telecommunications operators in serving consumers. However, not all people in certain areas can enjoy the latest communication technology. There are several areas that are still not reached by telecommunications infrastructure or are called blank spot areas (Putra, *et al.,* 2020).

Blank Spot is a location that does not yet have access to a telecommunications network, or is not yet served by a telecommunications tower and its equipment, namely the Base Transceiver Station (BTS). BTS is a telecommunications infrastructure that facilitates wireless communication between communication devices (such as cellular telephones) and the internet network provider operator network (Faisal, 2022).

There are many reasons behind the occurrence of Blank Spots in an area. Starting from technical and non-technical factors such as geographical conditions and weather factors. The main factors that cause blank spots to occur are natural (hilly areas) and artificial (infrastructure development and others) (Lintasarta, 2021). The influencing factors are:

1. Geographic Conditions

Geographical conditions are often the main factor in the lack of signal in a place. In fact, it is not uncommon for the more difficult the terrain and geographical conditions to be, the communication signal is lost completely. For example, a remote place in the middle of a forest or in a mountainous area. Signals will be difficult to obtain because there are no supporting facilities to capture existing signals such as BTS and optical cables.

2. Weather Factors

Apart from geographical conditions, weather factors also greatly influence the occurrence of Blank Spots. Bad weather, such as heavy rain, will release certain ions, which can interfere with receiving signals and block radio waves. Apart from rain, strong winds can also affect the direction of the network, causing the signal to be disrupted or even lost.

According to Adhika (2024), the impacts resulting from blank spot areas are quite risky, but that does not mean this problem cannot be overcome. There are several ways to overcome this problem that can be done in an area, namely:

1. Use of satellite technology

Satellite technology provides an effective solution to overcome blank spots by providing connectivity in locations that are difficult to reach by traditional infrastructure. Satellites can offer stable broadband internet services. The use of satellites is especially beneficial for companies operating in remote areas, such as mining or oil and gas exploration companies.

2. Wireless Mesh Network

Wireless mesh networking is a technology that allows devices to connect to each other without the need for central infrastructure. It is ideal for creating communication networks in areas that do not have good network coverage. With a mesh network, each node works as a repeater that propagates the signal to other nodes, thereby increasing the network's reliability and coverage.

3. Offline to Online Technology

Offline to Online (O2O) technology allows businesses to operate applications and store data offline, then resync them when an internet connection is available. This is very useful in blank spots where the internet connection is unstable or frequently disconnects. The use of O2O technology ensures that business operations continue to run efficiently even in less than ideal connection conditions.

4. Internet balloon or drone

The use of internet balloons or drones has become an innovative solution for providing internet connectivity in remote areas. Projects like Google Loon use stratospheric balloons to beam internet signals down, while drones can be quickly deployed to locations that need an emergency signal. This approach enables rapid restoration of critical communications services when needed.

5. Partnership with government or institutions

Collaboration with local governments or international institutions can accelerate infrastructure development in blank spot areas. Through partnerships, companies can utilize resources and subsidies by the government to build infrastructure. Apart from that, this kind of collaboration also often involves aspects of training and development of local communities which add added value to the company.

When the author carried out his service in South Dullah District, Tual City, Maluku. The author encountered problems experienced by people in the village, namely the lack of information and education. Village digitalization can be utilized by building a digital village that can overcome blank spots so that Taar village can get a good signal network to communicate smoothly and make Taar Village, Maluku, a better village. moving forward with today's modern era. However, currently the government has not been able to overcome the Blank Spot Area in Taar Village optimally, causing the village to often lose signal both for communicating via telephone and internet network. If you look back, Taar Village has a lot of potential to become a Digital Village because this village is a tourist village that has natural beauty and uniqueness that is able to attract local and foreign tourists. However, if it is not balanced with improvements to become a digital village in improving infrastructure and facilities such as blank spots areas which are useful for the advancement of telecommunications and information in the Taar Village area, South Dullah District, Tual City, Maluku.

CONCLUSION

Based on the explanation above, it can be concluded that this Community Service Activity has increased the insight of local village residents in knowing that the implementation of Digital Village Digitalization is able to overcome Blank Spots Areas in Taar Village, South Dullah District, Tual City, Maluku, although there are several things that still need to be improved for the progress of the community. in Taar Village. The implementation of Digital Village in overcoming Blank Spots areas in Taar Village currently still has many obstacles such as:

1. The lack of knowledge and information regarding the Digitalization of Digital Villages which can overcome Blank Spots Areas in the Village are not utilized properly and optimally, causing the loss of internet and telephone signal networks for communication.
2. The Lack of Government role in equitable development of communication infrastructure in villages is still not implemented optimally, causing villages to often lose signals to communicate

EXPRESSING OF THANKING

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REFERENCES

Adhika, A., 2024. "Mengenal Blank Spot dalam Bisnis dan Dampak Negatifnya!". Synapsis.id : https://synapsis.id/blank-spot.html

Anthony, M.R., 2023. "180 Desa di Bengkulu Sudah Berbasis Digital, Penerapan Maksimal Ada di Kabupaten Ini". Mimbardesa.com : https://mimbardesa.com/detail/1057/180-desa-di-bengkulu-sudah-berbasis-digital-penerapan-maksimal-ada-di-kabupaten-ini

Damara, D., 2024. "Era Kemajuan Teknologi, Jaringan Listrik dan Internet Dinilai Penting". Borneonews.co.id : https://www.borneonews.co.id/berita/337284-era-kemajuan-teknologi-jaringan-listrik-dan-internet-dinilai-penting#google_vignette.

Desanesia, 2020. "Apa Urgensi Mewujudkan Desa Digital ?". desanesia.com : https://www.desanesia.com/blog/apa-urgensi-mewujudkan-desa-digital.html

Efendi, E., Siregar, H.M., Hutagalung, A., Pasaribu, B., 2023. Teknologi Sistem Informasi. *INNOVATIVE: Journal Of Social Science Research*, 3(2), 43-53.

Elvandraich, 2022. "Menuju Desa Digital, Simak 5 hal berikut yang harus di Persiapkan". Meurah-brn.gampong.id : https://meurah-brn.gampong.id/berita/kategori/teknologi/menuju-desa-digital-simak-lima-hal-berikut-yang-harus-di-persiakan.

Faisal, A., 2022. "Satria bagian dari solusi "blank spot" di wilayah 3T Papua". Antaranews.com : https://www.antaranews.com/berita/3077209/satria-bagian-dari-solusi-blank-spot-di-wilayah-3t-papua

Farhan, 2023. "Komunikasi: Arti, Proses, dan Pentingnya dalam Kehidupan Manusia". Unsia.ac.id : https://unsia.ac.id/komunikasi-arti-proses-dan-pentingnya-dalam-kehidupan-manusia/

Firman, 2023. "DESA DIGITAL BAKAL TINGKATKAN EKONOMI DAN PERCEPAT PEMBANGUNAN DESA". kemendesa.go.id : https://kemendesa.go.id/berita/view/detil/4803/desa-digital-bakal-tingkatkan-ekonomi-dan-percepat-pembangunan-desa

Kemenpanrb, 2020. "UU Cipta Kerja Tingkatkan Kemudahan Berusaha dan Kualitas Pelayanan Publik". Menpan.go.id : https://www.menpan.go.id/site/berita-terkini/uu-cipta-kerja-tingkatkan-kemudahan-berusaha-dan-kualitas-pelayanan-publik.

Lintasarta, 2021. "Panduan Lengkap Blank Spot: Definisi dan cara kerja". Lintasarta.net : https://www.lintasarta.net/blog/solution/data-communications-internet/vsat/panduan-lengkap-blank-spot-definisi-dan-cara-kerja/.

Mariyadi, 2023. "Desa Digital: Masa Depan Desa Indonesia". Updesa.com : https://updesa.com/desa-digital/.

Ombudsman, 2023. "Optimalisasi Pengawasan di Daerah Tertinggal, Terdepan dan Terluar (3T)". Ombudsman.go.id : https://ombudsman.go.id/artikel/artikel/r/pwkinternal--optimalisasi-

pengawasan-di-daerah-tertinggal-terdepan-dan-terluar-3t.
Pangemanan, A.A.A., Karouw, S.D.S., Ridengan, Y.D.Y., 2021. Digital Village Development PlanninIn Kauditan I. *Jurnal Teknik Informatika*, 16(4), 393-400
Pramdhani, D.H., 2022. Framing Pemberitaan Kesenjangan Digital di Daerah 3T (Terdepan, Terluar dan Tertinggal) pada Media Online. *JIS (Jurnal Ilmu Siber),* 1(4), 117-122.
Purnamasari, D.M., Prabowo, D., 2020. "Wapres Sebut Pemerintah Telah Berupaya Percepat Perizinan dengan Teknologi Digital". Nasional.kompas.com : https://nasional.kompas.com/read/2020/12/03/13185181/wapres-sebut-pemerintah-telah-berupaya-percepat-perizinan-dengan-teknologi
Putera, F., Tommy, M., Rhussary, L., 2018. Peningkatan Mutu Pendidikan Daerah 3t (Terdepan,terpencil dan Tertinggal) di Kabupaten Mahakam Hulu. *Journal Neliti : Jurnal Ekonomi dan Manajemen*, 144-148.
Putra, B.D., Munadi, R., Walidainy, H., Meutia, E.D., Irhamsyah, M., Syahrial, 2020. Evaluasi Jaringan LTE pada Kawasan Blank Spot Menggunakan Model Propagasi COST-231 (Studi Kasus: Kecamatan Leupung, Aceh Besar). *Jurnal Ilmiah Setrum*, 9(1), 42-51.
Ramadhan, P.R., Panggabean, F.Y., Lubis, N.P., 2023. PARADOKS MODERNISASI VIS A VIS DEHUMANISASI DALAM PENGELOLAAN KEUANGAN DESA. *Seminar of Social Sciences Engineering & Humaniora*, 297-303
Saputra, G., 2018. *BLANK SPOT AREA PADA DAERAH URBAN DI BTS ARYA BANJAR GETAS DENGAN PENGUKURAN RECEIVED STRENGTH SIGNAL INDICATOR (RSSI)*. Skripsi. Universitas Mataram.
Shaina, P., 2023. "Apa yang dimaksud dengan Daerah 3T?". Blog.sahabatpedalaman.org : https://blog.sahabatpedalaman.org/pengertian-daerah-3t/.
Susilo, J., 2024. "Dinkominfotik Bangka pasang titik BTS". Babel.anataranews.com : https://babel.antaranews.com/berita/405312/dinkominfotik-bangka-pasang-titik-bts.
Tirayoh, G.A.T., Waworundeng, W., 2023. Implementasi Kebijakan Program Desa Digital Dalam Upaya Kemajuan Pelayanan Publik Di Desa Kauditan I Kecamatan Kauditan Kabupaten Minahasa Utara. *JURNAL GOVERNANCE*, 3(1), 1-11.