

## Conference Paper

# Social Media as a Platform to Increase Participation of Extension Workers and Farmers in Achieving SDGs

**Metha Madonna, Fikri Reza, Rina Sovianti**

Faculty of Communications, Universitas Bhayangkara Jakarta Raya, Jakarta, Indonesia

### ORCID

Metha Madonna: <https://orcid.org/0009-0003-2434-0034>

### Abstract.


The development of farming and agribusiness is a relevant and ideal choice considering the geographical structure of Indonesia as an agricultural country. However, there is a trend in society, particularly among the millennial generation, that prefers to focus on the mechanical industry, financial business, and entertainment. This situation is exacerbated by adolescents' widespread use of digital communication technologies and the occurrence of a pandemic, raising concerns that public participation in the agriculture sector may dwindle considerably. Based on several of these manifestations, an analysis was carried out that it was important to use internet-based digital communication tools as a medium of socialization while increasing community participation in agriculture. Social media platforms such as Facebook, WhatsApp, and Instagram can be used to communicate and improve production and marketing through e-commerce in order to fulfill sustainable development goals (SDGs). Social media is not simply a means of contact between extension workers and farmers—it can also be used to exchange information, innovate, build marketing networks, and obtain other farming supplies. This study aims to optimize the participation of extension workers and farmers in agricultural extension and communication activities. The study also intends to demonstrate the importance of using social media as a non-formal learning tool for farmers and the general public interested in agribusiness. This research applied the constructivist research paradigm with a systematical review method to explore and redefine social media as a medium of participatory extension and communication. As a result, the WhatsApp application provides a social media platform that extension workers and farmers can use for socialization, debate, and consulting to boost agricultural product output and marketing.

**Keywords:** social media, participation, counseling, communication

Corresponding Author: Metha Madonna; email: [metha.madonna@dsn.ubharajaya.ac.id](mailto:metha.madonna@dsn.ubharajaya.ac.id).

**Published** 18 July 2023

**Publishing services provided by Knowledge E**

 Metha Madonna et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the TSBEC Conference Committee.

## 1. Introduction

Communication in humans continues to develop not only in the family and the environment but also along with their social life, humans communicate also in the places they pass throughout their lives. As for one type of communication, namely interpersonal communication called interpersonal communication which is carried out by two people

 **OPEN ACCESS**

which most people do face to face and allows the creation of immediate feedback. The development of communication also affects a person's lifestyle and behavior, if in the past communication was done face-to-face, then developed with the presence of two-way communication technology such as telegrams, telephone sets, pagers, walkie talkies and the like which made interactions or relationships between individuals no longer limited by distance and time because they could communicate anytime and anywhere. After the era of wired telephone technology gave birth to telephones without cable or called a cellular phone that allows people to interact while moving freely either at home, in the office or in public places.

Furthermore, cellular telephones transformed into internet-based digital telephones continued to develop, starting with NMT and AMPS technology which focused on voice communication, followed by the emergence of GSM and CDMA technology which was an early sign of a digital communication system with the existence of short message services and low speed data services and Currently, Indonesian people can enjoy 3G and 3.5G services [1]. This condition allows users to communicate not only by voice but also in visual form and is equipped with various advanced features.

The development of digital communication in Indonesia continues to change, even more and more android users are getting higher, it can be said that one person on average has two to three cellphones for different needs and it can't be separated from teenagers and even children who already have or use cellphones for both learning and just looking for entertainment. Based on the multi-platform company from Canada Hootsuite in collaboration with We Are Social from the UK in its report entitled Digital 2020: A comprehensive look at the state of the internet, mobile devices, social media and e-commerce said for Indonesia, out of a total population of 272.1 million people, internet users reached 175.4 million, but the number of connected smartphones reached 338.2 units and this is almost double the number of internet users, so it can be said that almost the average person Indonesia has more than one smartphone. If seen in January 2020 the number of internet users increased by 25 million (17%) from January 2019 connected to 15 million units (4.6%) and social media increased by 12 million people (8.1%) [2].

Digital communication continues to develop and change rapidly, conditions it suddenly experienced a big leap when the covid-19 pandemic outbreak forced everyone to be digitally literate. This is because many countries require their citizens to carry out work, school and even transacting from home (WFH) activities to avoid the spread of the corona virus infection that continues to spread. Like it or not, the majority of human beings on earth are forced to use digital means of communication both in villages and

in cities. Including experienced by farmers in various parts of Indonesia who have experienced a communication deadlock since the Covid-19 outbreak, this condition urges extension workers to be creative and look for new strategies in order to maintain the existence of communication with farmers. Where an extension worker and stakeholder as a resource must remain active and productive in establishing communication with the main actors and agricultural businesses (receiver). Agricultural information starting from the cultivation process, harvesting to post-harvest must be conveyed properly and effectively so that no food will be held back [3].

Based on the above background, it is urgent to have mastery of digital communication by agricultural extension workers in an effort to develop farming communities, so the formulation of the problem is as follows: "How to improve Online Extension Services for Farmers During the Pandemic and the Digital Era. The purpose of this research is to examine the adaptation of extension workers in mastering digital communication in an effort to empower themselves as agents of change in the development of agricultural communities when facing a pandemic as well as the demands of the development of digital communication technology. As well as referring to the andragogy theory created by Alexander Kapp in 1833 the German nation and continued by Eugene Rosentock in 1921 which is learning for adults.

Furthermore, Malcolm Knowles [4] developed four main assumptions, namely Self-Concept: First, a person grows and matures, his self-concept begins to move from total dependence to self-direction. It can be said that children's self-concept is still dependent, while in adults their self-concept is already independent, because of this self-concept, adults need respect from others as human beings who can direct themselves, if their education concept faces a situation where they do not allow themselves to be self-directed, then there will be a reaction of displeasure or rejection. Both of them are mature enough to eat to accumulate a large amount of experience, so that they become a rich source of learning, which at the same time will give him a broad base to learn something new. So in andragogy reducing the lecture method, learning has to do a lot not just enough. with and absorb. This is in accordance with the general learning principle which believes that learning by doing is more effective than learning by just seeing or listening. Third, their readiness to learn is not due to academic coercion but because of the necessities of life and to carry out their social roles, therefore adults learn because they need their level of development to deal with their roles, whether as workers, parents, leader of an organization and so on. The four adults have a learning orientation tendency to solving life problems (problem center orientation).

This happens because learning for adults seems to be a necessity to face life's problems [5].

The research subject in this discussion is the formation of a WA group by extension workers in Malang in order to maximize the participation of extension workers and farmers in developing discussions, consultations and problem solving in agricultural activities in Malang Regency in Pagelaran District, East Java [2].

## 2. Methods

Research with a constructivist paradigm is learning that emphasizes more on the process and freedom in exploring knowledge and efforts in constructing experience. Where in the learning process it provides opportunities for students to express their ideas in their own language, to think about their experiences so that students become more creative and imaginative and can create a comfortable and conducive learning environment. develop knowledge by getting used to solving problems and finding something useful and struggling with ideas [6]. The research was conducted using a systematic review method, namely conducting a systematic literature review that took sources from scientific journals (primary) as well as publications and other documentation in the form of reference books, news and other archives (secondary).

The application of learning with a group approach technique in the form of discussions to the application of video demonstrations by utilizing digital communication with the choice of Whatapps group social media for interaction and consultation with extension workers as well as being a means to increase sales of farmers' products through e-commers.

## 3. Discussion

### 3.1. Conventional communication VS digital communication

The communication process at the beginning of human civilization was carried out in a simple way, namely by growling, crying, shouting, then with gestures, expressions, and so on called gestures, then progressed into simple verbal and nonverbal language. Understanding verbal communication according to Communication Science Prof. Deddy Mulyana, MA, Ph.D. interpreted as a form of communication that is conveyed by the communicator to the communicant in a written or oral manner [7].

Meanwhile, non-verbal communication according to Mark L Knapp is used to describe all communication events beyond spoken and written words [7]. Hardjana [8] defines nonverbal communication as the creation and exchange of messages by not using words but using body movements, attitudes, eye contact, facial expressions, proximity, distance, and touch [9].

The development of digital communication today is certainly inseparable from the birth of conventional communication technology in the past, the basic human need to communicate prompted him to create communication aids when facing obstacles of place, distance, geography and so on as well as obstacles of time because humans do not always gather in a community.

Humans are social creatures, so humans always interact with other creatures. Basically, human nature is always interacting with other creatures and conveying their desires and knowing the desires of others, is the beginning of human skills to communicate automatically through sign symbols, then being able to understand the meaning of these symbols in the form of verbal language. When humans communicate with other humans there is no authentic data that can explain it. Almost everyone needs social relationships and it is fulfilled through the exchange of messages that serves as a bridge to unite humans who without communicating will be isolated [10].

Human civilization continues to experience changes as well as the world of technology continues through various quality improvements that support communication that was previously blocked by distance and time. Written communication has been invented that can be sent via cellular phones, internet and fax machines and all of these are called Short Message Service (SMS), Email and Fax. The communication uses a tool based on electromagnetic waves that must be supported by satellites. In the phone in addition to the SMS facility, cellular providers also have Mail Message Services (MMS), which is sending messages via pictures and even equipped with 3G which can communicate via video. Even more sophisticated, a cellular phone or cellphone is equipped with other facilities such as radio, television, MP3 playback (a collection of songs), MP4 playback (a collection of videos), digital cameras and internet services based on WAP, GRPS and 3G [11].

It can be concluded that each period has its advantages and disadvantages in the process of human communication. In the era of conventional communication, humans carry out direct communication actions (face to face) so that there is a relationship emotionally, personally so as to create an atmosphere of intimacy so that quality relationships are established between individuals. However, the drawback is that when

it is constrained by distance and time, it will be difficult to communicate and even disconnect because there is no access.

On the other hand, the superiority of digital communication is that humans can communicate and interact with anyone anywhere and anytime in any part of the earth as long as the signal or electromagnetic waves emitted by satellites are still reachable. This includes advances in digital telecommunications technology in cellular phone devices such as smartphones or androids, humans can not only communicate but also meet the need for information through social media applications (facebook, whatsapp, twitter, instagram and so on) videos (youtube, videos, and so on) audio (mp3, mp4). However, the weakness of digital communication makes humans increasingly lose their human nature due to individualistic, selfish attitudes and concentrate more on their digital devices instead of concentrating on their communication relationships.

With the convergence of media, it creates a threat to children's humanism, where smartphone and gadget users become addicted or addicted like drug addicts, because games or content on the internet create curiosity, curiosity and do not want to stop before the game is finished (finished). This addiction causes children to be emotionally disturbed psychologically, easily angry because their desires are not completed [12].

### **3.2. Utilization of digital communication for non-formal education**

In an effort to suppress the spread of covid 19 in the education sector, the Ministry of National Education (Kemendikbud) implements Distance Education (PJJ) by utilizing the google meet application, google classroom, google form, zoom, microsoft teams and so on and PJJ applies to all regions of Indonesia as long as the number of spread still high. However, in practice there are still many obstacles, including not being able to use the application features on mobile or Android, not having a quota, not getting a network, even the most extreme, many of the students do not have an Android device or cellphone, including those who live in urban areas.

On the other hand, the use of digital communication media is important (urgent) in the world of education, both formal and non-formal, social change has encouraged everyone to improve their skills to operate a gadget so that they can follow the development of learning well, the conditions illustrate the importance of digital literacy for the community, especially in areas that have not been touched by technological advances in rural and underdeveloped areas. other.

Strengthening digital literacy is very urgent to be implemented immediately based on research at Darussalam Gontor University that applies literacy digital communication and

collaboration which is an element of digital literacy that is applied by active participation in learning activities carried out by utilizing e-learning and this is one of the models for strengthening digital literacy. With the existence of e-learning, lecturers who support basic courses are required to master new media so that they can indirectly improve their abilities related to their digital literacy skills [13].

Thus, it can be concluded that it is important for educators, especially in this case, extension workers as the spearhead of implementing non-formal education in the lowest community, especially farmers and rural areas. Extension workers need to equip themselves with the skills to master internet-based digital communication media, including various types of communication media applications in it relating to network expansion or increasing community participation.

### 3.3. Digital communication in e-commerce

Digitalization in the field of view produces large-scale electronic devices to support communication facilities such as mobile phones, smartphones, androids, and hardware note book, laptops and PCs, have brought great changes in various aspects of life. Among them are changes in the trade or business sector, namely the phenomenon of the transfer of all buying and selling transaction activities to e-commerce. As for understanding e-commerce (e-commerce) are all buying and selling activities carried out through electronic media and more often through the internet.

As for the type of e-commerce divided into six groups, namely Business to Business (Business to Business/B2B) where one company sells products or services to another company. Then Business to Consumer (Business to Consumer/B2C) where a company sells products or services to consumers. Next Consumer to Consumer (Consumer to consumer/C2C) for example selling used goods to other people in need. Consumer to Business (Consumer to Business/C2B) is where someone sells their products or services to a company. Business to Public Administration (Business to Public Administration/B2A) when viewed is similar to B2B, but the business actors are businesses and government institutions. Finally, regarding Consumers to Public Administration (C2A), this type of operation is similar to C2B which is carried out by individuals and government institutions, usually in the form of services [14].

### 3.4. Optimizing online extension services for farmers in Malang during the Covid-19 pandemic

The outbreak of the Covid 19 pandemic has an impact on social life where it is increasingly difficult to communicate directly (face to face) due to the implementation of Large-Scale Social Restrictions (PSBB) in various regions. This condition not only has an impact on urban communities but also has an impact on rural communities in this case farmers, who often chat or discuss in the fields now only through mobile applications such as WhatsApp and so on. As is the case with health workers who use digital communication in this case WhatsApp (WA) groups to socialize health [15]. Then the farmers in Malang Regency, Pagelaran District, East Java did the same thing, namely during the Covid 19 period, the extension workers in this case coordinated by BPP Dwi Sumular, SP and Dian Laili Novitasari Spt took the initiative to use digital communication to increase the participation of extension workers and farmers through the establishment of WhatsApp (WA) group. The use of digital communication is held to discuss, monitor and provide direction and advice to farmers. Where farmers, if they encounter problems, can express them in the WA group and become a material for discussion both between farmers and with extension workers.

On the other hand, in addition to monitoring, extension workers also note what problems must be prioritized to be resolved. Then, if possible, a direct meeting will be held to take action on the results of the discussion in the WA group. However, if conditions do not allow the extension worker has prepared a video recording which will later be shared in the WA group containing various answers asked by farmers.

This outreach activity using digital communication has actually been carried out since 2018 and was attended by farmer groups in all Pagelaran sub-districts. The formation of the WA group as part of digital communication is increasingly beneficial when the Indonesian nation is hit by the Covid-19 pandemic. While maintaining communication and interaction between extension workers and farmers, there is no other choice, both parties must force themselves to use this communication technology. Furthermore, the role of digital communication does not only help the implementation of learning or counseling in the form of consultation discussions and demonstrations. But furthermore, the WA group and the mastery of internet-based applications are expected to be managed by farmers to expand partnership networks and expand marketing. Thus, farmers enter a new phase of not only marketing their agricultural products conventionally in traditional markets but also entering the world of ecommerce.



## 4. Closing

Based on the explanation above, it can be concluded that digital communication brings major changes in social life and development and increases the active participation of the community through the use of digital communication technology, especially during the current Covid-19 pandemic which severely limits direct or face-to-face meetings (face to face).

Directly digital communication has increased opportunities for the community to obtain learning or education about all community empowerment efforts in improving their welfare. Through access to information and learning provided in a discussion or consultation with extension workers by utilizing digital media, it will further improve the quality of public knowledge. Furthermore, digital communication has also helped the implementation of learning or counseling in the form of questions and answers, discussions, consultations and demonstrations. But furthermore, WA groups and mastery of internet-based applications managed by extension workers and farmers can expand partnership networks and expand marketing. Thus, farmers enter a new phase of not only marketing their agricultural products conventionally in traditional markets but also entering the world e-commerce.

## References

- [1] Ariansyah K. Proyeksi Jumlah Pelanggan Telepon Bergerak Seluler di Indonesia. *Buletin Pos Dan Telekomunikasi*. 2014 Jun 20;12(2):151-166.
- [2] Sugino. Pola Pendampingan Penyuluhan Online Penyuluh Pertanian saat Pandemi Covid-19. 2020. Retrieved from <https://www.timesindonesia.co.id/read/news/268041/pola-pendampingan-penyuluhan-online-penyuluh-pertanian-saat-pandemi-covid19>
- [3] Humaidi L. Strategi Komunikasi Pertanian di Tengah Pandemi. 2020. Retrieved from <https://kepridays.co.id/2020/05/22/strategi-komunikasi-pertanian-di-tengah-pandemi/>
- [4] Knowles MS. Gearing adult education for the seventies. *Journal of Continuing Education in Nursing*. 1970;1(1):11-16.
- [5] Sunhaji S. Konsep pendidikan orang dewasa. *Jurnal Kependidikan*. 2013;1(1):1-1.
- [6] Hidayat I. Teori Belajar Konstruktivistik. 2013. Retrieved from <https://ikhsanhidayat28.wordpress.com/2013/04/21/teori-belajar-konstruktivistik/>

- [7] Mulyana D. Pengertian Komunikasi Verbal Menurut Para Ahli, Fungsi dan Contohnya. 2019. Retrieved from <https://batasketik.com/pengertian-komunikasi-verbal/>
- [8] Hardjana MA. Komunikasi Intrapersonal & Interpersonal. Yogyakarta: Kanisius. 2003.
- [9] Riadi M. Komunikasi Nonverbal. 2017. Retrieved from <https://www.kajianpustaka.com/2015/08/komunikasi-nonverbal.html>
- [10] Fajarwati D. Awal Perkembangan Komunikasi dan Penemuan Alfabet. 2012. Retrieved from [https://www.kompasiana.com/dyna\\_fw/5518f06e81331175729de0d2/awal-perkembangan-komunikasi-dan-penemuan-alfabet](https://www.kompasiana.com/dyna_fw/5518f06e81331175729de0d2/awal-perkembangan-komunikasi-dan-penemuan-alfabet)
- [11] Comic W. Telekomunikasi. Jakarta: PT Elex Media Komputindo. 2011.
- [12] Madonna, M. [methamadonnapronews.blogspot.com](https://methamadonnapronews.blogspot.com). 2020. Retrieved from <https://methamadonnapronews.blogspot.com/>
- [13] Setyaningsih R, Abdullah A, Prihantoro E, Hustinawaty H. Model penguatan literasi digital melalui pemanfaatan e-learning. *Jurnal Aspikom*. 2019 Jan 10;3(6):1200-1214.
- [14] Nayoan A. Apa itu E-commerce? Berikut Pengertian, Jenis, serta Manfaatnya!. 2019. Retrieved from <https://www.niagahoster.co.id/blog/apa-itu-ecommerce/>
- [15] Madonna M. Pengembangan Sistem Informasi dan Penyuluhan Kesehatan di Pedesaan Memanfaatkan Forum Komunikasi Warga Melalui WhatsApp Group. *Jurnal Resolusi Konflik, CSR dan Pemberdayaan (CARE)*. 2021 Oct 27;6(1):74-81.