

How to Cite:

Saengkaew, A., & Roengtam, S. (2022). Digital technology and local governance development: A situation and application analysis. *International Journal of Health Sciences*, 6(S2), 6758–6767. <https://doi.org/10.53730/ijhs.v6nS2.6639>

Digital technology and local governance development: A situation and application analysis

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Abstract--This study would like to demonstrate the conditions for implementing digital technology in municipal operations and the people residing in the municipality. The main objective is to study the use of digital technology in the works of the municipality and their attitudes towards the use of digital technology. The results are that digital technology can promote the achievement of information sharing both within the various departments of the municipality and between the municipality and the people. It allows all parties to have access to information and work together with a smoothness, not redundant or causing conflicts. It will contribute to the work of the municipality more efficiently. Therefore, the use of digital technology under this feature aims to promote the flow of information between different parties to occur thoroughly and equally. They can take advantage of data to work together as well.

Keywords--digital technology, local governance, citizen engagement, public participation, co-production.

Introduction

Currently, People's participation in public policy processes in the local administration of Thailand is a minimal possibility. Mainly, all those processes are always controlled by government and state offices. Though, laws and regulations show that people have the right to engagement. The government often has not been concerned with strictly following those. Generally, they might invite people to participate in giving information about their problems and demands. Then the state offices will gather that information to consider for making public

policies mutually with their data. So, people's engagement in this process is just a little. People can engage at the beginning of the process only. After that, they cannot get involved anymore. They hardly can participate in the other processes such as policy decision making and formulation, implementation, and evaluation. If they can, they just are invited to be on a committee led by the officers, and they rarely have the authority to make decisions together.

The problems of public policy, as mentioned above, can be resolved by increasing the roles and authorities of people within all public policies processes. So, this study is interested to discover supportive approaches to increase the power of people within public policy processes, which will enhance the efficiency of public policy processes and the effectiveness of outcomes of public policies in Thailand in the future.

Digital government is a development of electronic government. It intends to assist the public sector in transitioning from an efficiency-driven approach to digital technology to one that is more open, collaborative, and innovative (Malhotra et al., 2020). The digital revolution of the economy and society has altered public expectations of governments, resulting in calls for increased transparency and the establishment of places and methods for individuals and businesses to express their demands. Failure to adapt to this new reality might result in policy failures and the continuation of outmoded and useless services in the face of evolving commercial models (Digital Govovernment, 2011). On the other hand, the digital revolution presents a potential for public sector enterprises. Increased digital maturity enables the public sector to satisfy growing citizen expectations, remain relevant, and enhance policy formulation and the design and delivery of public services in the twenty-first century (OECD, 2020). Strategic use of digital and data will enable public sector organizations to alter their service design and delivery processes, which will directly impact citizens' happiness with and faith in governments (Shkarlet et al., 2020).

This study will propose the approaches to using digital technology to promote citizen engagement development and local governance. Because, theoretically, using digital technology can help create and strengthen citizens themselves, increasing their feelings of political efficacy and political knowledge. It is the development of citizens as actors, capable of claiming rights and acting for themselves. So, they can develop a greater sense of awareness of rights and empowered self-identity, which serve as a prerequisite to deepening action and participation. Their study will also propose evidence that citizen engagement supported by social media use will be able to create new conditions to strengthen the future of local governance.

Objectives

1. To study situations of social media use in local government administrations.
2. To study the contributions of social media use in creating citizen engagement and local governance.

Literature review

Governments worldwide are becoming more conscious of the potential of information and communications technologies (ICTs) and digital governance to advance and change public institutions, the public-sector environment in general, and their service delivery capabilities, among other things. Digital government has the potential to contribute to the development of practical, inclusive, and accountable institutions that assist policymaking and service delivery in support of the SDGs (Teigland et al., 2020; Twizeyimana & Andersson, 2019). The 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) have embraced the spread of Information and Communication Technologies (ICTs) and global interconnectedness as having enormous potential to accelerate human progress, close the digital divide and foster the development of knowledge societies (Aritonang, 2017). This work is critical considering the fast pace and evolution of technology essential to digital governance. ICTs continuously develop and alter communities, cultures, and economies in spectacular ways (Canedo et al., 2018). The globe has witnessed fast technological developments and changes in the ICT environment, including social media, big data, and the Internet of Things (S. Lee et al., 2016; Mains & MacLean, 2017). Mobile technology and a broadband connection, already widespread in wealthy nations, quickly expand in emerging markets and developing countries. Social networks have significantly altered and influenced the way individuals engage with one another and their governments (Lemke et al., 2020; Nigussie et al., 2020). The combination of open government data and cloud computing and the widespread usage of mobile devices has expanded the ICT ecosystem (H. Yang et al., 2019).

The fast growth of digital technology over the last several decades has altered how governments and individuals communicate and organize socially and economically (Fietkiewicz et al., 2017). From the early adoption of computers and basic communication systems to the exponential growth of data, the emergence of artificial intelligence (AI), and the widespread adoption of mobile devices, digital technologies have demonstrated the potential to disrupt public sector organizations' internal operations and revolutionize the design and delivery of policies and services (Leão et al., 2018). Adopting digital technology across government can revolutionize how the public sector handles its fundamental operations and foster cooperation inside and across levels of government (Malhotra et al., 2020). These innovations can improve government performance and efficiency of service delivery by transforming how public services interact with public sector entities (Ciuriak & Ptashkina, 2019). These new modes of contact have the potential to contribute to the development and or reinforcement of public trust and confidence in governments. They are thus critical for the citizen-state relationship to be strengthened. From this vantage point, digital technologies play a critical role in reshaping people's experiences with public service delivery, eventually affecting the legitimacy of our democratic processes. Previously, attempts to boost the efficiency and transparency of public sector organizations via the use of technology were critical to the digitalization of government procedures and the improvement of public sector operations (Pearce & Gaffney, 2020a). The digitization of administrative operations is applied by deploying information technology throughout public sector enterprises. The shift to

paperless administrations and online information and service delivery channels are all examples of e-government-oriented initiatives. Despite the significant benefits of e-government, these techniques frequently incorporated technology into inefficient procedures based on established management practices and analog logic in the public sector (Performance, 2015).

The focus has shifted away from efficiency and productivity and toward more participatory, creative, and adaptable forms of governance throughout time (Assadi, 2016). Increased integration, coherence, and horizontality are critical components of the transformation brought in by the digital government paradigm. It includes the idea of complete public sector digitization. The digital government's imperative utilizes digital data and technology to provide seamless service transformation, cross-cutting cooperation, and data sharing to create open, user-driven, and proactive public sector organizations (OECD, 2020). In this perspective, intelligent use of digital tools and data to create digital ecosystems inside governments may equip civil servants with the resources and skills required to drive the digital transformation (Gorwa, 2019). This paradigm shift enables digital governments to achieve a greater degree of maturity, enabling them to satisfy people's demands better, enhance well-being, and boost public satisfaction with government. The public sector must define common standards to develop shared infrastructures and use data as a strategic asset for public value creation, and establish mechanisms for third parties, e.g., the third sector, the GovTech community, to collaborate with governments on service innovation (William J. McIver & Ahmed K. Elmagarmid, 2002). Establishing fundamental enablers and policy components lays the groundwork for a coordinated and sustainable digital transformation of the public sector that benefits citizens (Leão et al., 2018).

Methodology

This study will implement the qualitative research methodology through data collection, analysis, and synthesis. There are three steps of research as follows. First, to collect data, this research will use the interview and focus group methods for the selected vital informants following the issues determined by the researcher as objective number 1.

The second is about data analysis; this research will use the content analysis method to compare all collected data before and after using social media in local government administrations. Then interpreting data followed by theories and concepts for describing research results as objective number 2.

Three municipalities in Chaiyaphum province in the Northeast of Thailand apply this research. Those are City Municipality, Municipality, and Municipal District. The study will select the best practice in people participation promotion in the local government.

The purposive sampling for selecting key informants will be applied. These selected ones will be persons who are authorized officers, civil society organization (CSO) groups, and representatives of social media groups who got involved in the digital technology using activities.

Results

1. Situations of digital technology use in local government administrations

The study in this chapter wanted to demonstrate the conditions for implementing digital technology in municipal operations and the people residing in the municipality. This study would like to present that municipalities and people know how to use digital technology in their work and what is their attitude toward the use of social media. From the results, the municipality and people agreed that the advantages of using digital technology are helping to increase channels of communication. It makes public relations more informative and increases communication channels to reach the target audience well. In addition, it also has a low public relations cost, convenient, fast, and can also always report the movement of the municipality to the people.

Both sides agree that digital technology is a new channel for reducing the cost of the people. It allows the municipality to resolve the issue quickly. It also improves the performance of municipalities because the information is transmitted quickly. And there is also a quicker follow-up and evaluation of the results. It makes them know which work has been done or not done. In addition, digital technology applications such as Facebook can also take photos and send them to the municipality to show where the problem is reported? Therefore, the municipality can also solve problems for the people because it can create a good understanding between the complainant and the officer. It can be displayed with both images and text.

However, the use of social media still has some weaknesses. Significantly, some people can still communicate with the municipality effectively because they are known to use social media. In contrast, some people may not be able to use it as well as they should—for example, the elderly, farmers, laborers, etc. In addition, The study found that another critical problem was the municipality's ability to respond to complaints. Sometimes it fails to resolve the issues expected of the public service because, in some cases, some complaints are not directly the municipality's responsibility. It is the duty of other external agencies. As a result, people may misunderstand the operation of the municipality.

The above study concludes that both the municipality and the people have the same opinion that with the advancement of digital technology, people can communicate with each other faster and more extensively. It is a tool that narrows the gap between the state and the people. Currently, the state and the people are becoming closer together. People can communicate complaints directly to the local government and make the local government organization get information from the public to be used in policy formulation and planning to formulate effective solutions to people's problems.

2. The contributions of digital technology used in creating citizen engagement and local governance

Both municipalities and people in the research area can access and use digital technology very well. The study found that both parties have and use digital

technology with applications as tools or channels to use in operation and daily life. At the same time, The study found that social media was used for communication and always worked together informally until it was considered normal to promote collaboration between municipalities and the people. Both sides agree that digital technology can increase the municipality's capacity very well, accepting its use standard and positive attitude towards its use. It is considered one of the critical factors that positively impact the development of digital technology to enhance civic responsibility and the administration of local governments to occur further.

However, the development of digital technology by the municipality is necessary to consider the improvement of the mission and the responsibilities of government officials who perform routine tasks of the municipality to be consistent with appropriateness. It must be designed and improve the administration within the municipality in terms of the project, rules, and regulations to facilitate the performance of government officials that must change because of the use of digital technology. It must be based on the principle that Digital technology must not use for government officials to have more missions but must be able to apply digital technology to help ease work and help facilitate the work for government officials. It must be a tool that makes officials see can help in working and resulting in more efficient work both in terms of working according to personal responsibilities and coordination work or work with other agencies within the municipality. The municipality can apply digital technology according to the principles. It will result in government officials accepting the actual implementation. It will help to make the gift and encouragement in the performance of the civil servants of the municipality increased, which will help increase the efficiency of the municipality's operations.

People have suggested that digital technology design should consider usability and be appropriate to the local context. The study found that, in the past, the state often brought new technologies used by the government and the public. Still, some technologies may have a complicated process until the government and people do not care to use them. And it often leads to failure, including the loss of budget for the adoption of new technologies to apply in the government system and the society often.

Therefore, it is necessary to design a method that is easy to use and appropriate to the working context of government officials and people in each municipality. The critical factor that will affect the use of digital technology in the development of the work is not caused by the tool or applications. The acceptance and intention of using the municipality government officials and people in the area are more important. The development of the use of digital technology must adhere to the principles of comfort, convenience, and empowerment. The features of use according to the principle are as follows:

The comfort: digital technology must be accessible and suitable for both parties. It must be an application with a simple use process and is not complicated. It will help both parties work together efficiently, without interruption, and without causing confusion or conflicts, including the design to be compatible with all municipal applications and people. It may not be necessary to change the use of

the old application in the municipality, and people are popular to use it, for example, Facebook. But it must design a method for using digital technology that allows the use of existing applications. It can be applied to work together better for both parties. The use of digital technology must cause changes that affect the adaptation of both users to a minimum. It must be a design that does not create a burden on users to increase it.

The convenience: digital technology must be used flexibly for both parties. They must use digital technology everywhere and at any time. Both parties must be able to use it wherever they are in the municipality and can be used anytime. There is no time limit on which features of this use. It will help people and municipalities to communicate with each other and work together efficiently, agilely, and without interruption. It will significantly facilitate collaboration.

The empowerment: the use of digital technology must increase the efficiency and effectiveness of the work of the municipality and the people. It must be aimed at eliminating or alleviating problems arising from the municipality's operation, which is in the past that often interfered with many municipal operating procedures and did not give people the opportunity to participate in working with the municipality as much as they should.

The results of this study can be displayed in summary in figure 1

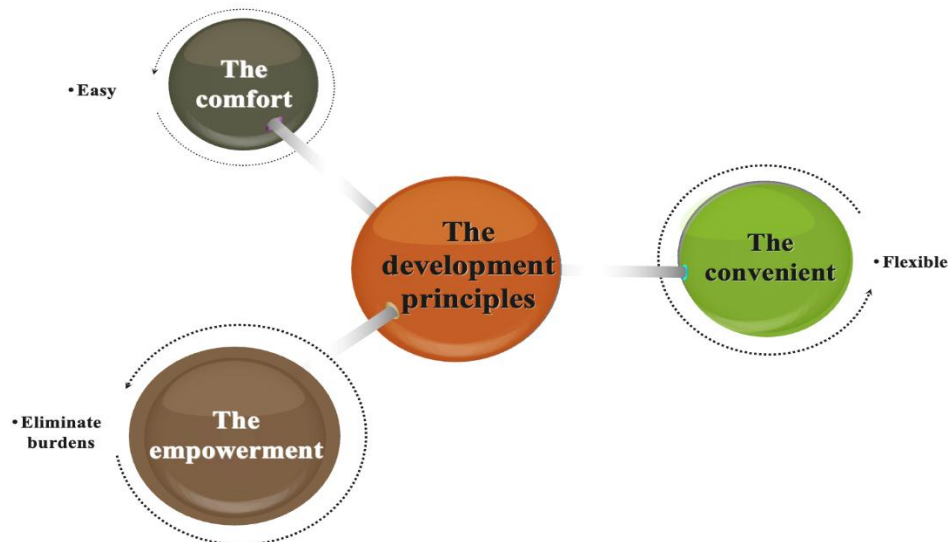


Figure 1 The development principles of the use of digital technology

Conclusion

So, the use of digital technology wants to achieve information sharing within the various municipality departments and between the municipality and people. It allows all parties to have access to information and work together with a smoothness, not redundant or causing conflicts. It will contribute to the work of the municipality more efficiently. Therefore, the use of digital technology under

this feature aims to promote the flow of information between different parties to occur thoroughly and equally. They can take advantage of data to work together as well.

The adoption of digital technology, according to this study, wants to be used to create a public space in the local community. It can support the municipality and public to communicate and work together better. Digital technology can be applied as another middle space for the municipality. People have used it as a space for consultation, exchanging information, and doing activities together without needing to use the area within the municipality. It will be a central area wanting to use digital technology as another alternative area that facilitates both parties to come together and take responsibility for decision-making and doing various activities together. The use of digital technology can create a collaborative space in the form of virtual space, which the municipality can use all the time. It is a way to increase the efficiency and effectiveness of the work of the municipality.

The municipality can use digital technology to facilitate people in each area into account the context of the people's lifestyle, including the cultural traditions and traditions of the people. It must not make the alienation from the general practice or create additional burdens on the people, and other users in the area and in the organization, which may result in people and users in the organization are not interested in using it. Therefore, the design of how to use digital technology must consider a supporting tool that can respond to people's lifestyles and the organization's operational guidelines that already exist. Therefore, it will help bring digital technology to use with a chance of success.

The use of digital technology wants to make spaces between the municipalities and the people, which is a significant obstacle in developing cooperation between the people and the municipality. Digital technology can reduce it by using digital technology to help this happen. Because it will help make the government officials and people communicate with each other closely. It will help both parties to create more trust with each other. And it will be an opportunity for both parties to take responsibility through collaborative thinking, joint decision making, and joint action and share the results of working together very well. Therefore, the adoption of digital technology is creating mutual acceptance and co-production. It will be an essential precondition to help Digital technology can reduce the gap between municipalities with the public. Suppose social media can reduce the gap in collaboration between the two parties. In that case, it will ensure that citizen engagement and local governance, which are essential factors for the success of public administration at the local level, can continue to be good as expected.

At last, the municipality should not use digital technology solely by ignoring the dimension of people's relationships in the community. However, digital technology is a valuable tool for developing strength in work and communication between people in the community and the municipality. But the turning to focus on digital technology as the leading work in place of the past management may destroy the strength of the connections of the people in the community and the personal relationship between the people in the community and the municipality. Therefore, it should be cautious in promoting digital technology in communication

and collaboration between municipalities and the people in the area because there may be a scope of use that will not affect the relationship of people in the community and between the people and the municipality.

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