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DIGITAL POLICE-CITIZEN INTERACTION THROUGH POLRI SUPER APP: A MULTI-APPROACH STUDY



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➔ INTRODUCTION

As the lives of Indonesians become more digital, an electronic government (e-government) slowly emerges. The demand for digitalized public service has now surfaced, aimed for faster and safer administration, as a response towards reduced public trust in government institutions. Public trust in POLRI, the Indonesian police force, is surveyed to be the lowest among other institutions, as reported by Ombudsman RI.¹ They disclosed that most reports during 2020 complained about police maladministration. A 2018 study across six jurisdictions found that, while decreasing over the years, dislike towards police public service is one of the major factors that inhibit better police-citizen interaction.² People prefer hiring “intermediary services” (“jasa perantara”) to take care of their driver’s licenses, vehicle registrations, criminal records, and ticket fines instead of going to the police stations themselves. The biggest reasons are the long waiting time, complicated procedures, and unfriendly officers, among others. To increase public satisfaction with their services, POLRI has developed a “super app” called Presisi.

A super app is a mobile application that contains a diverse range of services and functions in a single platform. Generally, super apps aim to offer users a comprehensive experience by concentrating multiple services on one convenient app. Presisi is a super app in this sense because the services available range from digitized police administrative services to a virtual POLRI museum tour. It was also a “super app” in the sense that it



combines features from previously developed but separate POLRI apps, such as Digital Korlantas POLRI (an app that provides traffic services) and MediaHub POLRI (a news app that provides information about police activities).

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Presisi is a system aimed at standardizing police services,³ fashioned as a super app. Through their phones, citizens are now able to access services which were exclusively available offline before, especially those that demanded them to engage in uncomfortable predicaments. Police-citizen interactions could now happen digitally. As a result, it could be projected to set aside major factors that decrease public satisfaction towards police public services because citizens no longer need to experience unwanted situations as mentioned above. This is an effort by the government to realize public satisfaction with the services provided by government institutions in accordance with the standards set out in UU Pelayanan Publik (No. 25/2009).

However, it still needs to be determined whether Presisi has positively impacted public satisfaction towards police services since its launch at the beginning of 2023. In order to understand it, we need to analyze



how citizens as users experience the application as it is and record their after engaging with it. We maintain that citizen experience in using the application is one of the essential elements to determine how successful Presisi is in accomplishing its goal. Another approach this study will undertake is a policy-based review. Several legal documents act as directional bases for Presisi, both as a means for public service and media for digital police-citizen interaction. In particular, the policy relevant to this instance is UU Pelayanan Publik. It will be important to determine whether Presisi is based on an adequate foundation and whether it, as experienced by users, is aligned with the implemented standards. Through this review, we will evaluate Presisi's normative framework as a resource to optimize it in the future.

Accordingly, the questions we intend to answer in this paper are as follows: (1) How do users experience Presisi in terms of its usability? (2) What are the implications of policies on government-citizen interaction in the development of Presisi? The first research question aims to evaluate Presisi through user experience and how successful it is in achieving user satisfaction. The second question aims to review the effectiveness of mentioned policies and the implications they have on Presisi.

This study serves as an expansion to the literature of digital police management. In terms of the methods used, this study also serves as a pilot to further develop techniques for accurately assessing usability and public service measurements of government websites and applications.

This study is structured as follows. In the next section, we reviewed the literature on digitalization of public service, especially policing, and highlighted its benefits, challenges, and contextualization in Indonesia. Furthermore, the section on data collection detailed the use of usability heuristic evaluation and policy analysis in this study. We collected data on user first time experience towards Presisi and principal points from UU Pelayanan Publik. The section on findings will report the data collected using both methods. Lastly, our conclusion discussed significant points for digitalization of police-citizen interaction and gave suggestions for further research.





➔ LITERATURE REVIEW

Digital police-citizen interaction, especially through mobile applications, has become an increasingly popular and important topic as the idea of e-government is becoming more apparent, and citizens seek more convenient ways to engage with law enforcement. This section discusses several pieces of research about police-citizen interaction that has recently been done in virtue of the digital rise.

A study by Temitayo Isaac Odeyemi and A. Sat Obiyan puts Nigerian police-citizen relations in a similar context to Indonesia, one with mutual distrust and questionable police performance.⁴ They assessed a platform and mobile app called PCRRU (Public Complaints Rapid Response Unit) which allows citizens to report police abuse directly to the higher-ranking officers through SMS, phone calls, and other media. The authors deemed the use of digital technologies in pacifying public distrust towards the police promising. Like in the case of PCRRU, citizens can play an added role in overseeing police action. This will achieve a deeper monitoring over the police by appealing to the relevant authorities. Furthermore, this would provide a way to engage citizens in improving police accountability.

The set of police app features that may potentially alleviate public distrust towards the police can be expansive. Camilla Elphick et al. investigated community policing apps and outlined some measurements to assess them. They measured several categories, which are user data protection (including user anonymity and the inclusion of privacy policy), user reassurance (e.g. lack of discrimination), user safeguarding (e.g. features for safety and emergency), user empowerment or engagement (e.g. increasing community awareness and sociability), information sharing

(e.g. accurate and precise information), and navigability and presentability (e.g. attractive design and easy-to-operate).⁵ This literature has provided us useful insights about what an ideal police app might look like, with citizens contributing to information sharing and surveillance-tracking systems. However, these measurements are better used as design considerations, as the authors themselves have said, and its use for analyzing Presisi can be too broad as Presisi is designed more primarily to accommodate administrative service by the police, not community policing. Instead, the current study focuses on several measurements, not entirely disconnected with Elphick et al., that relate to user experience towards app interface.

Additionally, one relevant study is done to identify criteria for public services. Kasmir's 2006 identification of the elements of good public service provides a useful framework for evaluating the quality of public service in Indonesia. The elements that characterize good public services that are related to the conducted research are:

- Availability of good employees;
- The availability of adequate facilities and infrastructure;
- Being responsible to every customer (community) from the beginning to the end;
- Being able to provide fast and accurate service;
- Being able to communicate;
- Being able to provide confidentiality guarantees in every transaction;
- Having good skills and knowledge;
- Striving to understand the needs of customers (community);
- Being able to gain trust from the community.⁶

The principles of good public service identified by Kasmir are consistent with the principles of UU Pelayanan Publik. The law emphasizes the importance of providing high-quality public services to all citizens of the country. The law also emphasizes the need for accountability, transparency, and efficiency in public service provision. These elements are closely related to the principles of the UU Pelayanan Publik and can serve as a guide for policymakers and public service providers in improving the quality of public service in the country.

➔ METHODS

Policy Analysis

The goal of the UU Pelayanan Publik (No. 25/2009) is to improve the quality of public services and provide easier access for the public to obtain good and fast public services. This is done by applying principles of transparency, accountability, legal certainty, and community participation in the provision of public services.

In this policy analysis, we used several methods to evaluate the implementation of Presisi and its alignment with UU Pelayanan Publik.

Firstly, a content analysis method was used to examine the provisions of UU Pelayanan Publik and compare them with the objectives and features of Presisi. This method helped to identify areas where Presisi aligns with the principles and provisions of UU Pelayanan Publik, as well as areas where further improvements could be made.

Secondly, a stakeholder analysis method was used to identify the key stakeholders involved in Presisi's implementation and assess their interests, influence, and level of involvement in the development of the app. This method helped to identify potential challenges and opportunities for implementing Presisi in accordance with UU Pelayanan Publik.

Thirdly, a policy evaluation method was used to assess the effectiveness of Presisi in achieving its policy goals and identify areas where further improvements could be made. This involved collecting data on the impact of Presisi on the quality of police services, transparency and accountability in service provision, and the satisfaction of users with the app.

Lastly, a policy alternative method was used to develop recommendations for improving Presisi's alignment with UU Pelayanan Publik. This involved identifying potential policy alternatives and evaluating their feasibility and effectiveness in addressing the challenges identified in the policy evaluation.

Overall, these methods were used to analyze the implementation of Presisi in relation to UU Pelayanan Publik and identify opportunities for improving the quality and accessibility of police services in Indonesia.

Usability Evaluation

In order to document and analyze public opinion after using Presisi, we implemented a usability evaluation by available heuristic methods. Jakob Nielsen (1993; 1994[2020]) developed 10 usability principles that serve as criteria to evaluate interface elements that would prompt satisfying user experience. The principles are as follows:

-  Visibility of system status;
-  Match between system and the real world;
-  User control and freedom;
-  Consistency and standards;
-  Error prevention;
-  Recognition rather than recall;
-  Flexibility and efficiency of use;
-  Aesthetic and minimalist design;
-  Help users recognize, diagnose, and recover from errors; and
-  Help and documentation. ⁷

The evaluations are done by asking two participants, in isolated sessions, to use Presisi for the first time and exploring every element accessible. The participants were accompanied by a trained moderator that ensured they understood the point of every principle before each session began. In exploring Presisi, the participants were asked to speak their thoughts out loud in reaction to every dialogue and elements they encountered, especially if they identified a problem or error. The moderator were not allowed to help the participants unless absolutely necessary. At the end of each session, participants were asked further about their reactions during the exploration in order to clarify some of their thoughts. Lastly, they were asked to rate their satisfaction on a scale of 1 to 5 about how Presisi fulfilled each principle.

We omitted the sixth principle (“Recognition rather than recall”) from our evaluation in this research because it is related to repeated usage or interaction with a system. That principle is used to evaluate how the system retains previously inputted information so that users would not have to spend repeated time and efforts doing the same task (such as inserting username and password). As all participants were first time users of Presisi, the sixth principle could not be properly evaluated.

Researchers drew on two participants as evaluators. Both were college students that have recently (no more than one month before the evaluation session) experienced offline police services.

Findings

In this section, we report our findings after implementing the methods and techniques mentioned above. First, evaluations from public first-time users are documented before we take a more comprehensive look with UU Pelayanan Publik and how the user interface and experience design of Presisi support digital police-citizen interaction.

We invited evaluators to take a look at Presisi and how it would align with the usability heuristics. The result of the evaluations identified several usability issues in Presisi. The following paragraphs describe the issues found under each of the heuristics.

Firstly, in terms of the visibility of system status in Presisi, the evaluators found that, for the most part, Presisi did a good job of giving feedback and reaction to their actions. However, there were a few instances where the app did not provide adequate feedback. For example, users cannot go through the available features from the “Lainnya” (“Others”) panel more than once, but there was no indication of error. The users ended up having to go back to the main page first in order to continue accessing the other features.

The evaluators noted fairly well of Presisi’s match with the real world. Presisi uses visually understandable icons to communicate its features, such as a car icon for “STNK” (“vehicle registration”) and traffic light icon for “Tilang” (“ticket fine”). However, the evaluators mentioned that there were abbreviations that are not familiar but not clarified by the app, namely “SP2HP” and “PROPAM”. One evaluator remarked that information about service fees in the app were different from what they were charged with when they went to the local police station a few weeks before the evaluation session.

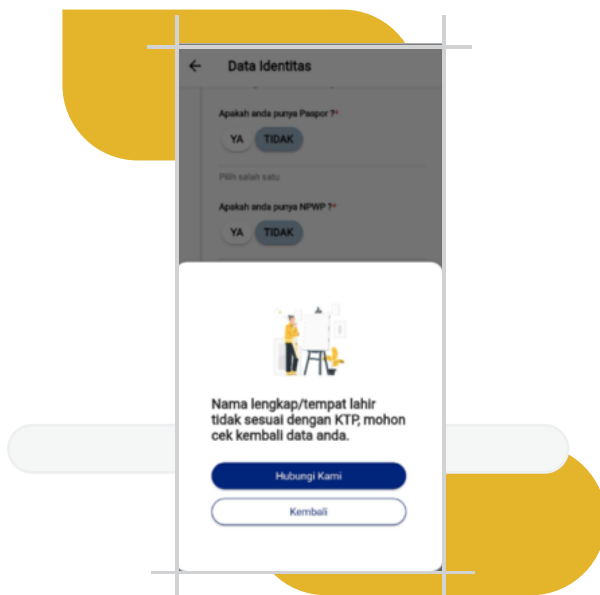
Generally, Presisi was consistent and standardized in its interface elements and design patterns. Instances where evaluators noted deviation in its common design patterns were when the app directed users to windows that seemed to belong to other websites or apps. This happened, for example, when evaluators accessed “TV/Radio POLRI” and “Info Lokasi Rawan” (“incident mapping information”). The evaluators were, however, found to be pleased the most when assessing Presisi’s fairly aesthetic and minimalist design. The interface and icons helped users to focus on accessing the service needed. However, one instance of issue was the appearance of news that camouflaged the “Pusat Bantuan” (“Help Center”) icon in the main page.

The evaluators found that Presisi is decent in terms of error prevention. The system gave good general guidance on how to proceed to certain services and warned users before doing actions that might be unprecedented. This impacted on its flexibility and efficiency. Presisi is easy

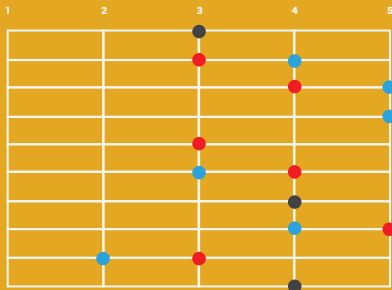
to learn and straightforward for beginners as priority services are available on the main page. The prevention of errors also provided users with a good degree of control and freedom. The evaluators found no problems in this regard.

When errors happened, Presisi sometimes helped users recognize them by providing users with understandable messages, as our evaluators noted. One occasion is when users cannot access services before they fill in and verify their data, a message pops up to tell them what's wrong and what to do in order to proceed. However, there was one error that seemed unexplainable. When one evaluator filled in their name for verification, a message from the system said their name or birth date did not correspond to their ID when it should. The solution from the system was to recheck and contact their helpdesk. The evaluator ended up not being able to further access Presisi's features because they cannot proceed with the verification.

Another way to recover from errors was identified when the evaluators found that Presisi provided an adequate amount of help and documentation in the form of FAQs. The button for help is also decently visible in the main page.



Visibility of system status
 Match between system and the real world
 User control and freedom
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 Flexibility and efficiency of use
 Aesthetic and minimalist design
 Help users recognize, diagnose, and recover from errors
 Help and documentation



● Evaluator A ● Evaluator B ● Equal Rating

In terms of its suitability towards the working policy, we studied UU Pelayanan Publik and identified Presisi's strengths and shortcomings accordingly. In order to do that, we first outline several principles and provisions that govern the delivery of public services in UU Pelayanan Publik. These principles and provisions include:

Quality of Public Services

UU Pelayanan Publik requires that public services be provided with high quality standards that meet the needs of citizens.

Accessibility of Public Services

UU Pelayanan Publik requires that public services be easily accessible to citizens, regardless of their geographic location or socio-economic status.

Transparency and Accountability

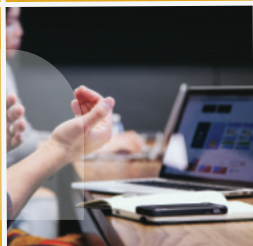
UU Pelayanan Publik requires that public service providers be transparent and accountable in their service delivery.

Citizen Participation

UU Pelayanan Publik encourages citizen participation in the development and delivery of public services

Presisi aligns with the principles and provisions of UU Pelayanan Publik by providing a platform that allows citizens to access various police services easily. The app aims to provide high-quality services that meet the needs of citizens. Presisi is easily accessible to citizens, regardless of their geographic location or socio-economic status. The app has improved the transparency and accountability of the police force by allowing citizens to track the status of their complaints and see how the police force is handling them (SP2HP). Presisi also encourages citizen participation by allowing citizens to report crimes and provide feedback on police services via eSurvey.

Presisi's primary policy goal is to improve police-citizen interaction by providing easy access to police services and enhancing communication between citizens and police officers. In terms of achieving this goal, Presisi has shown some positive results. Firstly, the app has been effective in enhancing police-citizen interaction by allowing citizens to report crimes, submit complaints, and request police services directly, reducing the need for physical visits to police stations. It has also increased transparency in police operations, enabling citizens to monitor activities and report misconduct (SP2HP). Secondly, Presisi has improved public service delivery by providing citizens with easy access to services like vehicle registrations (STNK) and driver license (SIM) renewal, reducing wait times and increasing efficiency. The app's features, such as tracking the status of requests and complaints, have enhanced accountability and transparency. Lastly, Presisi has moderately increased citizen participation in governance by providing a platform for reporting issues, giving feedback, and suggesting improvements. Overall, Presisi's efforts have been promising in enhancing police-citizen interaction, improving public service delivery, and fostering citizen participation in governance.





However, there are some areas where Presisi has fallen short in achieving its policy goals. For example, as mentioned above, the app's user interface can be overwhelming at times, making it difficult for some citizens to navigate and access its features. The app's language options are limited, making it less accessible to non-Indonesian speaking citizens. Additionally, some citizens have reported that police officers are not always responsive or effective in addressing their concerns, even when reported through the app. To address the identified shortcomings and further enhance the effectiveness of Presisi, there are several key areas for improvement that should be considered.

First and foremost, increasing public awareness of the app's features and benefits is crucial. Many citizens may not be fully aware of the capabilities and advantages that Presisi offers. To overcome this, targeted advertising campaigns can be launched to raise awareness about the app's functionalities and how it can positively impact their interactions with the police. Collaborating with civil society organizations and conducting community outreach programs can also help spread the word about Presisi and its potential benefits for citizens.

Improving the app's functionality is another important aspect to focus on. This can be achieved through regular user feedback surveys to understand the pain points and suggestions for improvement by actively

and incorporating user feedback into the app's development process, Presisi can ensure that it remains user-friendly, intuitive, and tailored to the evolving needs of its users. Regular updates and enhancements based on user input will contribute to a better user experience and increased satisfaction.

Enhancing user engagement is vital to foster active citizen participation in governance and policing. Presisi can introduce interactive features within the app, such as chatbots or user forums, to encourage discussions and facilitate direct communication between citizens and police officers. Additionally, incorporating gamification elements can create a more engaging and rewarding experience for users, motivating them to actively utilize the app's features and contribute to its community.

Addressing accessibility issues is also crucial to ensure that Presisi is accessible to all citizens, regardless of their socio-economic status or geographic location. Presisi can establish physical support centers in areas with limited internet access, where citizens can receive assistance in using the app and accessing its features. Furthermore, efforts should be made to design the app in a way that is user-friendly and inclusive for individuals with disabilities, ensuring equal access and usability for all.

Expanding the range of services provided by Presisi would greatly enhance its effectiveness. In addition to its current features, Presisi can consider incorporating functionalities that enable citizens to report incidents of domestic violence or cybercrime directly through the app. Furthermore, providing resources and information within the app for accessing legal aid or counseling services can contribute to a comprehensive and holistic approach to addressing citizen needs and concerns.





Improving data management systems is of utmost importance to ensure the privacy and security of citizen data. Presisi should prioritize the implementation of robust data protection policies and procedures, including encryption, secure storage, and strict access controls. Regular audits should be conducted to assess compliance with international data protection standards, and necessary updates or enhancements should be made accordingly.

By addressing these key areas for improvement, Presisi can evolve into an even more powerful tool for enhancing police-citizen interaction, improving public service delivery, and fostering active citizen participation in governance. With increased public awareness, improved functionality, enhanced user engagement, better accessibility, expanded services, and robust data management, Presisi can truly revolutionize the way citizens engage with the police and contribute to safer and more transparent communities.

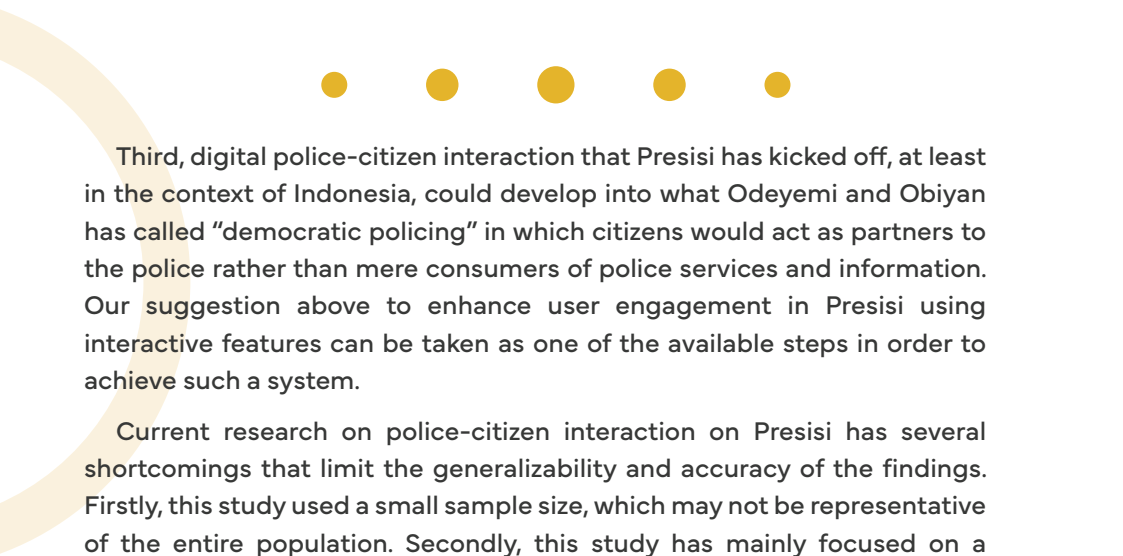




➔ DISCUSSION & CONCLUSION

Findings from usability evaluation and policy analysis of Presisi has amounted to several significant points in the topic of digital police-citizen interaction. First, digital police-citizen interaction in Indonesia through Presisi is projected to be a productive area for further development and improvement due to public mistrust towards police interactions and inconvenience of currently available facilities and infrastructure. Usability evaluations confirmed that Presisi has taken a desirable first step, but optimization of the system and expansion of service is needed as added value in order to boost community outreach.

Second, there is an indication that police-citizen interaction done digitally might be the way forward in order to develop a more competent and convenient police public service system. The general public dislike of offline police services we cited at the beginning of this paper could be an urgent factor to consider the rapid development project of Presisi. This, however, does not amount to the claim that society would need to exclusively utilize digital police services. Better police training in realizing offline procedural justice as studied and discussed by Dai should be undertaken simultaneously. In addition, offline police services could be evaluated through public service principles this study has identified and extracted from UU Pelayanan Publik.



Third, digital police–citizen interaction that Presisi has kicked off, at least in the context of Indonesia, could develop into what Odeyemi and Obiyan has called “democratic policing” in which citizens would act as partners to the police rather than mere consumers of police services and information. Our suggestion above to enhance user engagement in Presisi using interactive features can be taken as one of the available steps in order to achieve such a system.

Current research on police–citizen interaction on Presisi has several shortcomings that limit the generalizability and accuracy of the findings. Firstly, this study used a small sample size, which may not be representative of the entire population. Secondly, this study has mainly focused on a specific demographic which limits the diversity and generalizability of the findings.

To improve the quality of research on police–citizen interaction on Presisi, future studies should address these shortcomings. First, researchers should aim to include larger and more diverse samples of participants to improve the generalizability of the findings. Secondly, mixed-methods approaches, combining both qualitative and quantitative methods, could be employed to gain a more comprehensive understanding of police–citizen interaction on Presisi. Thirdly, longitudinal studies could be conducted to establish causality between variables and provide insights into how police–citizen interaction on Presisi changes over time. Lastly, researchers could use other measures, such as behavioral observations, to complement self-reported data and provide a more accurate representation of actual behavior.

In summary, while the current research on police–citizen interaction on Presisi has provided valuable insights into the effectiveness of this digital app in improving police–citizen interaction, there is a need for more comprehensive and interdisciplinary research that examines the broader implications of the app on policing and community relations, as well as its ethical and legal implications. Future research should also explore the potential for the app to be used for community-led policing and crime prevention initiatives.

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➔ FIGURES

Figure 1. One of Presisi's first pages promising to reduce public inconvenience when accessing police services

Figure 2. A problem encountered when one evaluator tried to fill their verification form

Figure 3. Evaluators' ratings



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Center for Digital Society (CfDS) is the research center established by the Faculty of Social and Political Sciences, Universitas Gadjah Mada. The institution is created under the concern over the contemporary dynamics of socio-political condition of the world that is accentuated by the impeccable influence of information technology. The phenomenon triggers the new patterns and complexities in the society, and thus requires new approaches in managing such complexities.

CfDS pledged to delve more on the study of contemporary digital society, including related issues surrounding the topic; such as the issues of smart city and urban development. The emphasis is then put on the utilization of technology to shape the society in becoming digitalized, as well as to bring solvency to social issues.

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