

The Privacy Challenge in the ‘Smart Era’: A Study of The Implementation of E-Government in Surabaya

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Abstract: As the concept of smart city is globally trending, Surabaya, the second biggest city in Indonesia, has adopted those concepts in the form of e-government. Surabaya has been introducing smart city concept to involve citizen in monitoring in its public services including the budgeting process, monitoring on officials training, traffic management, quick response management, urban planning, e-health and many more. In the implementation of e-government, e-readiness becomes important to measure the quality of information used over infrastructures, business, government and citizen as a user to enjoy the benefit. As a result the use of surveillance technology is a must. Afterwards, the debate in using such technology is rising. Although the use of surveillance technology is not a new thing in the implementation of e-government, it is still questionable whether the right to privacy is disrupted or strengthened. This paper arrives at a conclusion that the excess of surveillance technology should consider human rights holder as subject of development rather than mere passive recipient of service.

1 INTRODUCTION

In this Information Era, the concept of Smart city is recently a new phenomenon due to the city development. The concept has developed and focused on new policies in urban planning along with the using of Information, Communication and Technology (ICT). There are previously many studies on smart city from urban planning, public policy, administration environmental, sociology and technology.

There should have at least three main pillars on smart city: infrastructure, human capital and information managed by certain organization or department (Tuba Bakici, 2013). Infrastructure applied in smart city ranging from physic such as road, buildings up to artificial intelligence and data analytics such as cyber infrastructure or cyber layers. Human capital and organization represents on how smart city managed in such way to increase city welfare.

The concept of smart city is generally a city that is considerably capable of managing its resources effectively and efficiently, by carrying out innovative, integrated, and sustainable solutions and providing services and supporting infrastructure to

improve the welfare of its citizens. In addition, a smart city is essentially a complex framework surrounding connected objects and technology lead to produce data to the cloud where intelligence is managed and analysed to help organization or management to make better decisions and improve citizens' welfare (IOT Magazine, 2017). Furthermore, the issue of big data would also contribute to complexity of the smart city studies.

Following to the issue on privacy and the complexity of big data because of the smart city technology, there would be concerned on how actually the privacy might be invaded by surveillance system. As argued by Kurbalija, the invasion of privacy itself would be caused by individuals, states and business sector (Kurbalija, 2014).

Surveillance in smart city refers to the behaviour's monitoring, activities and other changing information for the purpose of influencing, managing, directing or protecting people (Lyon, 2001). Furthermore, surveillance aims at observing certain object from a distance (Maximino, 2014) like the use of CCTV or information and communication interception. Indeed, privacy issue would be the main issue due to ICT's involvement as a result of

the surveillance activity although the concept of privacy itself might vary as privacy determined by social and national cultural value. Some will consider privacy is more important but other may consider it less importance (Kurbalija, 2014). Undeniably, in the context of smart city, surveillance technology is commonly used to monitor daily activity the citizen and its surrounding. The surveillance system creates certain data in big volume or massively known as big data.

Meanwhile, to create those smart city, enhancing the e-Government plays a significant role since the system of e-Government would connect people, data, things and process under one single dynamic global infrastructure. In addition, one of key activities of smart city can be identified by providing smart governance through e-Government system. In this context, e-Government might improve to achieve good governance specifically for increasing transparency and accountability. e-Government also increases community participation to strengthen the existing democratic system.

There are at least five standards to develop e-Government system that should meet the requirements, namely: reliable, interoperable, scalable, user friendly, and integrate-able (Indonesia, 2004). *Reliable*, this standard requires that the application system will run reliably against data entry errors, the changes on operating system and bug free. *Interoperable*, this is to ensure that the application system will be able to communicate with other system and able to exchange some data and information. *User friendly*, this will ensure that operation of the application system will be easy for the user which provides common interface and adjusted to the users. Lastly, *integrate-able* will ensure that the application system has certain features to integrate with other application systems, specifically for conducting data and information exchange between e-Government application systems, both within the scope of local governments.

In Indonesia, Presidential Instruction No. 3 of 2003 sets out the mandate of the development of e-Government on National Policy and Strategy for Developing E-Government (Inpres). The Inpres states that the development of e-Government is one of the government's efforts in improving the quality of public services in various public sectors effectively and efficiently.

Surabaya, the second biggest city in Indonesia, succeeded to implement smart city in the form of e-Government. Surabaya's e-Government divided into two main services: the community services and theregional development planning and management processes. The community services consists five

clusters ranging from license service, education, budgeting and procurement (e-Government Surabaya, 2017).

However, there are certain areas needed to discuss whether or not the implementation of smart city will enhance the efficiency and effectiveness on its service. On the other hand, the surveillance created by the system will simply invade the citizen privacy or help for increasing the need of the security.

This paper is trying to discuss the legal aspect on the implementation of smart city by portraying the excess of technology used by smart city happening in the existing regulation of Surabaya local government, focussing on the perspective of the right to privacy.

2 SURVEILLANCE SYSTEM IN SMART ERA: ENHANCING EFFICIENCY OR INVADING PRIVACY

The adopted ICT system of smart city has to do with city infrastructure, operation and activities. To run the infrastructure, smart city relies on data in a massive volume (big data). CCTV, microphones, sensors are few examples on how the management to collect such data. The collected data is used later to analyse the daily behaviour of the citizen and its surrounding. This action is possibly alleged as surveillance.

As It is argued by Lyon, surveillance study is part of watching the human behaviour (Lyon, 2001). Therefore there should be a question addressed to how the citizen respond over those authority's control. Surveillance, however, should requires certain elements such as 1) availability; this element ensuring reliable access of information used by the smart city authority since it is impossible to collect data without reliable on the access to data; 2) integrity; the data should be reliable and accurate; 3) confidentiality; the surveillance system should ensure the process of collecting, storing and analysing. The authorized management or organization will guarantee that the data is treated in confidential manner; 4) considering the fact that the operation of ICT might involve many actions, the idea of accountability essential that users of a system should be responsible for each step of the actions they perform (Solove, 2008).

Based on the elements described above, big data as the main product permits the authority to allow government or authority to improve public sector

administration and assists global organization in analysing information to develop strategic planning (Polonetsky, 2013). As a result, over and inaccurate personalization to certain data caused by the system allow to display images to identify fugitives, missing persons and persons of interest. Yet, there's always changing on physical appearance of individual. Violation occurs when there is an absence of data protection principles for acquisition of the data (Paripurna, et al., 2018). Furthermore, the violation often occurs when there is a misuse on limited access of individual in the public sphere in which the individual might have no control over their own personal information. This also highlighted by Posner that this becomes a tool to conceal information about themselves that others might use to their advantages (Posner, 1983).

Therefore, it is clear that the surveillance system might threaten citizens' privacy. Privacy defined as the control over personal information, yet to decide or to disclose personal information (Pan, 2016). In line with that, Solove also highlighted that privacy has been interpreted widely as the right of a person to choose seclusion from the attention of others, if they wish to choose so, also the right to be immune from scrutiny or being observed in private setting (Solove, 2008). While the smart city is equipped with the data produced by its surveillance system, the legal perspective on privacy is determined by the control of individual to maintain his personal information from collecting, processing, sharing, retaining or even manipulating data (Paripurna, et al., 2018).

Moreover, privacy has been considerably a part of fundamental rights acknowledged in international legal framework as one rights to be promoted, protected, and fulfilled by the government. Consequently, in regard to implementing smart city as such, the protection over the citizen privacy should take a place in the first account.

3 HUMAN RIGHTS PERSPECTIVE TO DEVELOP IT-BASED SERVICES

An interesting experience once took a place when a citizen apply for a passport to the immigration office. To get a passport, a citizen should provide at least four documents (national identity card, birth certificate, degree certificate, marriage decree and/or family identification card). The name typed on the document is asked to be exactly the same name. In that occasion, the citizen's name at the national identity card (KTP) was a single space different with the name at the birth certificate. The citizen then

went to the local civil registration bureau of Surabaya to ask for a letter of proof that the discrepancy on the documents consisting name are both valid. Surabaya has applied e-government system processed this issue through the system and provided the letter within three days. The citizen then brought the letter to immigration office to complete the application. Unfortunately, the letter of proof issued by the bureau was rejected by the immigration office because it was signed electronically. They argued that the regulations stated that documents should be original in wet stamped and signed. For that reason, the citizen should start the administrative procedure at the beginning; apply for correcting name on KTP and family identification card. It takes much time about a month; then re-apply for a passport for other two weeks.

The fact proves that the implementation of IT-based government hindered long established problem related to organization and bureaucracy. Regarding this, Surabaya city through Mayor Instrument Number 5 of 2013 concerning guidelines for the use of information and communication technology in the implementation of local government taking into account at least four main obstacles which are; *firstly*, there is a lack of openness to allow the user to understand as well as monitor the progress of the service process; *secondly*, organizational work pattern that are mostly sectoral; It is difficult to integrate and standardized public services provided by different government sectors because they might be has different line of delegation; there are also a strong bureaucratic rules that require face-to-face between users and service providers in many stages of the service process; again there is strict provisions of the availability of physical documents beginning of the process services that cause long delivery and distribution process documents for evaluation purposes; and *lastly*, there is a weak feedback mechanism and methods use to evaluate each activity to ensure the accountability of service delivery (Rights, 2006).

E-Government is defined as the process of utilizing ICT as a tool to improve the efficiency and quality of public services and government management. E-Government basically affects two aspects at once; device or procedures to manage source of information, also public or society that is the recipient of services. Consequently, development of e-government should not merely mind the sophistication of the application of technology but also taking human rights into consideration in all sequence.

It is also found that in the IT-based service delivery, the government still relies on the third parties. For this reason it is crucial to consider in which sequence of the process that might violate the rights holder. Being that, the regulation concerning data protection, data sharing and data owned are still incomplete. Correspondingly, local government should be extra careful when they develop smart city system.

In the perspective of human rights, it is essentially important to check whether or not e-government system aware of some good practices includes; whether the people are recognized as key actors in their own development, rather than passive recipients of commodities and services; whether the programmes focus on marginalized, disadvantaged, and excluded groups; and whether the programmes aim to reduce disparity. Human rights-based approach can be used as parameters to evaluate the process. Human rights-based approach is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. It seeks to analyse inequalities which lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress.

4 CONCLUSIONS

The implementation of e-government is expected to improve the quality of citizens' life to ease the citizen to access the information so that it meet the citizens' information right and to build a more transparent governance practices. Furthermore, E-Government offers effectiveness and efficiency in the delivery of public services such as cutting licensing bureaucracy together with facilitating coordination between government agencies. However, the analysis found the fact that in some manners, the use of technology, including surveillance, data collecting etc. paper tends to treat citizen as an object rather than subject as rights-holders. The excess of surveillance technology that has been used in smart city might be threatening privacy in terms of the limitation access over citizen's personal information in the public sphere. It should take into account that smart city is for people which cannot be determined by algorithms or system. Besides, that smart city programme is expected to improve efficiency at the most, the surveillance systems and its technology should

support the citizen rights which allow them to be more flourishing through critical thoughts or ongoing debate, while authority should guarantee the citizen rights by enabling the sufficient regulation protecting their rights to control over personal information.

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