Technology Affordance and Constraint Perspectives on Social Media Use in eParticipation:

A Case Study in Indonesia

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Summary

This doctoral thesis explains the role of social media within eParticipation from the perspective of politicians in the Indonesian context using the Technology Affordance and Constraints Theory (TACT) as a lens. Previous research findings into citizens' perceptions of social media in eParticipation have been ambivalent; namely, social media can both encourage and discourage the democratic process depending on where, when, and how it is used. Furthermore, there is little understanding of the role of social media in influencing decision-making in the democratic process from the politicians' perspective. Thus, my research is focused on gaining a more in-depth understanding of the role of social media in eParticipation from perspective of politicians through three main research questions: (1) How do politicians use social media for eParticipation purposes? (2) What are the constraints of social media use within eParticipation? and (3) What are the conditions needed for social media affordance acutalization to take place?

I used a qualitative-interpretive case study approach, guided by TACT, to answer these research questions. Interpretive research has the potential to produce extensive insights into the phenomena and can help researchers better understand human actions in a social and organizational context. This approach was used to examine social media affordances, constraints and facilitating conditions for social media use in eParticipation from the perspective of politicians at three level of Indonesian parliament: district, provincial and national.

This doctoral thesis offers theoretical and practical contributions. From a theoretical perspective, a framework for the feedback loop affordance actualization process provides a conceptualization of unintentional affordance actualization and mindful actualization of new affordances. Practical contributions include: first, making explicit the role of social media for politicians in eParticipation, both in terms of internal and external social media affordances. Second, the framework can be used to identify social media constraints that can discourage politicians from using social media for eParticipation purposes. Identified constraints can be categorized as: technological, informational, personal, legal and socio-cultural. Third, this thesis identifies any significant facilitating conditions for social media that can have an effect on eParticipation from the perspective of politicians.

This thesis puts forward practical social media implementation strategies for eParticipation that align with eParticipation goals; namely, to improve democratic governance, and encourage inclusion, transparency and participatory outcomes. Practical implications are categorized as managerial, policy or socio-cultural. This thesis first examines how such implementation strategies can be adopted within a similar context in Indonesia. Secondly, it acknowledges that supportive regulations are a crucial facilitating condition for social media to be effectively utilized in eParticipation. This thesis suggests, therefore, that the government pay attention to, and adjust any unsupportive regulations that could impede the use of social media by eParticipation stakeholders to support the democratic process. Thirdly, in this thesis, strict customary norms are identified as indigenous factors that determine how social media for eParticipation is implemented in a particular setting. Therefore, context is an important factor when investigating the application and implementation of Information and Communication Technology (ICT) in a specific setting.

Several limitations are addressed in this thesis where they represent the direction that future research avenues could take on social media use within an eParticipation framework.

Keywords: Social media, eParticipation, politician, Technology Affordance and Constraint Theory, facilitating condition, Indonesia, Affordance actualization, unintentional actualization, mindful actualization, feedback loop affordance actualization.

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Abbreviations

MPR
Majelis Permusyarakatan Rakyat
The People's Consultative Assembly.

DPR-RI
Dewan Perwakilan Rakyat Republik Indonesia
The National Parliament of the Indonesian Republic.

DPD
Dewan Perwakilam Daerah
The Regional Representative Council.

DPRD-DIY
Dewan Perwakilan Rakyat Daerah Istimewa Yogyakarta
The Regional Parliament of Special Regions of Yogyakarta.

DPRD-GK
Dewan Perwakilan Rakyat Daerah Gunung Kidul
The District Parliament of Gunung Kidul.

1 Introduction

Social media has the potential to fulfill many different electronic participation (eParticipation) needs, ranging from information dissemination to people empowerment (Pflughoeft & Schneider, 2019). Social media is a general term for *"a group of internet-based applications that build on the ideological foundations of web 2.0, and that allow the creation and exchange of user generated content"* (A. M. Kaplan & Haenlein, 2010, p. 61). Recent research on the use of social media in eParticipation has focused on different aspects of public issues, including: social media for transportation planning decisions (Nikolaidou & Papaioannou, 2018; Pflughoeft & Schneider, 2019), informative and consultative social media for an eParticipation tool in local government (Hampl & Jaňurová, 2019; Yildiz, Ocak, Yildirim, Cagiltay, & Babaoglu, 2020), social media for civic protests against government, online political discussions and political campaigns (B. Irawanto, 2019; Khutkyy, 2019; Sandoval-Almazan, 2019), social media for citizen reporting (Dini, Sæbo, & Wahid, 2018; Kopackova & Libalova, 2019) and social media for increasing government transparency, capacity and integrity (Adrees, Sheta, Omer, Stiawan, & Budiarto, 2019). The use of eParticipation using social media has led to positive perceptions of governments; hence, such outcomes may attenuate the idea that social media may not have any impact on government decision-making (Pflughoeft & Schneider, 2019).

However, despite such positive perceptions, there is a lack of research on the process of interaction between eParticipation actors through social media and how this impacts on the decision-making process. In this doctoral thesis, I examine the role of social media in eParticipation from a politician's perspective within the Technology Affordance and Constraints Theory (TACT) framework. The focus of this study is on the relationship between politicians and the use of social media as eParticipation tool. I chose to focus on politicians in eParticipation because they are the ones who make the final decisions in policy-making through the legislative function. Nonetheless, the aim is to involve constituents who support the process. Furthermore, politicians who operate at a parliamentary level play a significant role in policy-making processes as representatives of the legislature. Thus, gaining an understanding from the politicians' perspective will shed some light on the role of social media in eParticipation. Although constituents were not the main focus of this study, their role was still taken into consideration by extending

interviews to include political activists and citizens, who act as the voice of constituents. Thus, this study examined interactions which took place via social media between politicians and citizens, as well as between politicians, themselves. I used TACT as a lens to examine social media affordances, constraints and facilitating conditions from the perspective of politicians.

Existing literature defines eParticipation as the use of Information and Communication Technology (ICT) in terms of citizens' engagement with each other and with their government to support democratic decision-making processes by the government (Islam, 2008; Macintosh, 2004; Medaglia, 2012; Yueping Zheng, 2017). Such engagement may include: (1) discussions between public officials, between citizens, and between citizens and public officials via mainstream social media platforms such as Facebook, WhatsApp or Twitter, to (2) communication through official government sites, politicians' blogs, government-created social media and other media using ICTs which results in two-way engagement. The political discourse is then considered by governments when they are engaged in any decision-making processes.

This study used a qualitative interpretive approach to understand the role of social media in eParticipation in Indonesia from the perspective of politicians. TACT was used to interpret the role of social media within the empirical condition whereby some politicians use social media to achieve goals for eParticipation whilst others with the same goals do not. Technology affordance is the potential action resulting from an actor's use of a technology artefact within a particular context (Anderson & Robey, 2017; Majchrzak & Markus, 2012; Wahid & Sæbø, 2015). Technology constraint refers to *"ways in which an individual or organization can be held back from accomplishing a particular goal when using a technology or system"* (Majchrzak & Markus, 2012, p.1). By using TACT, I was able to investigate both affordance and constraints for a particular piece of technology simultaneously. The concept of technology affordance and constraint helps to explain why people who use the same technology may engage in similar or dissimilar communication and work practices (P. Leonardi, 2011; Treem & Leonardi, 2013). Previous technology affordance studies have argued that researchers should pay more attention to the actualization process, addressing both the enabling and constraining factors that may be encountered during the process (Strong et al., 2014; Wang, Wang, & Tang, 2018). Thus,

in this thesis, I have chosen to use the concept of TACT, with its emphasis on the actualization process, as the basis for examining the role of social media in eParticipation from the perspective of politicians.

The scope of this thesis is to consider politicians at an individual level using a TACT perspective within the Indonesian context. The main actors in this study are elected parliamentary representatives; I will use the term 'politicians' hereafter. The study aims to bridge gaps in the existing literature on social media in eParticipation research. These gaps include:

(1) a lack of support for pessimistic views on the harmful impact of social media on eParticipation; as well as (2) a lack of solid evidence of its revolutionary impact beyond occasional anecdotal evidence (Bradshaw & Howard, 2019; Hassan & Hamari, 2019; Skoric, Zhu, Goh, & Pang, 2016). In this sense, capturing social media use from a politician's perspective using TACT will improve our understanding of the role of social media in eParticipation without focusing on any particular feature of social media. Rather, the focus is on the types of communicative practices afforded by various features, which manifest themselves as social media affordances. By so doing, *"it is much more likely to have staying power because it builds theory about the relationship between technology and communication without foregrounding one concept or the other"* (Treem & Leonardi, 2013, p. 178).

(3) Existing research on technology affordance has mainly focused on the affordance perspective of an object rather than the constraints (Treem & Leonardi, 2013; Volkoff & Strong, 2013; Wahid & Sæbø, 2015; Yingqin Zheng & Yu, 2016). Nonetheless, it should be recognized that objects embody both affordance and constraints at the same time (P. Leonardi, 2011; Majchrzak & Markus, 2012). Likewise, previous literature on social media use within eParticipation has emphasized only the examination of its affordances (Enjolras, Steen-Johnsen, & Wollebaek, 2013; Halpern & Gibbs, 2013; Obar, 2014; Pflughoeft & Schneider, 2019; Sandoval-Almazan, 2019). People perceive a particular piece of technology as affording distinct possibilities for action. Similarly, people may perceive that a technology offers no affordances for action, perceiving instead that a technology constrains their ability to reach their goals (P. Leonardi, 2011; Treem & Leonardi, 2013).

Understanding both social media affordance and constraints may provide a possible projection of effective and sustainable eParticipation design and solutions for eParticipation stakeholders. Furthermore, the identification of social media constraints could shed some light on social media strategy adopted by politicians, which could include appropriating the identified constraints or changing the goals (P. Leonardi, 2011).

Lastly, (4) eParticipation research acknowledges that facilitating conditions have a positive effect on the intention to use eParticipation tools. Thus, governments should maintain a supportive environment around eParticipation, whenever possible (Naranjo-Zolotov, Oliveira, & Casteleyn, 2019). If one links this factor with previous research on technology affordance, one could argue that perceived affordances cannot be actualized if facilitating conditions do not exist (Thapa & Sein, 2018). This highlights the importance of mapping facilitating conditions that lead to actualization. A mutually influencing role between actors and facilitating conditions acts as a mechanism in the process of actualization (Thapa & Sein, 2018). Therefore, when examining the role of social media in eParticipation it is important to also investigate any facilitating conditions for effective actualization. Earlier research has also sought to investigate the way in which the affordance actualization process may lead to the emergence of new affordances (Pozzi, Pigni, & Vitari, 2014; Thapa & Sein, 2018; Volkoff & Strong, 2013, 2017). However, in explaining the emergence of new affordances, I would argue that scholars have not clearly acknowledged the potential involvement of secondary actors, who may have triggered the actualization process of a new affordance. To date, research on the actualization of affordances has only explained and specified the process and conditions through which affordances are perceived to lead to actualization (Thapa & Sein, 2018). Research has not yet acknowledged the involvement of other actors who have also perceived the new affordance. This thesis goes beyond earlier studies by introducing an additional facilitating condition: the involvement of secondary actors who raise the main actor's awareness. Awareness in the process helps to explain the process of unintentional actualization that can turn into mindful actualization of new affordances.

To understand the role of social media in eParticipation from a politician's perspective within the framework of technology affordance and constraints, this doctoral thesis formulated three main research questions:

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1) How do politicians use social media for eParticipation purposes?

2) What are the constraints of social media use within eParticipation?

3) What are the conditions needed for social media affordance actualization to take place?

To answer these research questions, I carried out 16 semi-structured interviews with politicians at three levels of Indonesian parliament, 5 social media strategists, 4 political activists, 8 citizens, and 5 civil servants who built and managed government social media applications between 2015 and 2017. In addition, I included within the data analysis supporting data from online and offline government archival documents, *netnography* (ethnography within the internet sphere), social media posts, statistical data and website content. My research questions were based on: a rigorous literature review presented in Paper 1 (Dini & Sæbo, 2016), empirical facts in Paper 2 (Dini, Wahid, & Sæbo, 2016), Paper 3 (Dini & Wahid, 2017), Paper 4 (Dini et al., 2018), and Paper 5 (Dini, 2017), and theoretical perspective and practical motivations. These papers are listed below.

Paper 1	Dini, A. A., Sæbo, Ø. (2016). *The Current State of Social Media Research for eParticipation in Developing Countries: A Literature Review.* Paper presented at the 2016 49th Hawaii International Conference on System Sciences (HICSS).
Paper 2	Dini, A. A., Wahid, F., & Sæbo, Ø. (2016). *Affordances and Constraints of Social Media Use in eParticipation: Perspectives from Indonesian Politicians*. Paper presented at the Pacific Asia Conference on Information Systems (PACIS), Chiayi, Taiwan.
Paper 3	Dini, A. A., & Wahid, F. (2017). *Four Strategies of Social Media Use Among Indonesian Politicians.* Paper presented at the International Conference on Social Implications of Computers in Developing Countries (IFIP WG 9.4). Yogyakarta, Indonesia
Paper 4	Dini, A. A. (2017). *The Dark Side of Social Media in eParticipation: a Socio-legal Perspective.* Paper presented at the twenty-third Americas Conference on Information Systems (AMCIS), Sheraton Hotel, Boston.
Paper 5	Dini, A. A., Sæbo, Ø., & Wahid, F. (2018). Affordances and effects of introducing social media within eParticipation—Findings from government-initiated Indonesian project. *The Electronic Journal of Information Systems in Developing Countries (EJISDC)*, *84*(4), e12035.

Table 1.1 List of Papers

1.1 Motivation for the Study

This study is inspired by theoretical and practical considerations. From a practical perspective, in Indonesia, eParticipation is represented by communication between citizens, between politicians and citizens, and between politicians at various parliamentary levels (i.e., national, provincial and district levels). Cultural, economic, political and social

contextual issues in Indonesia differentiate this study from other research within the same area. If one considers Indonesia's political history, social media use in the country can be seen as a new and euphoric way of articulating freedom of expression. Although Indonesia gained independence in August 1945, it was not until late 1998 that freedom of expression and freedom of speech were granted as basic human rights. Since 1998, Indonesia has been transformed from a country governed by authoritarianism to one of the world's fastest growing democratic and diverse countries. Formerly, under the New Order, the government's decision-making processes were exclusive and closed from public view. Today, an increasing interest in eParticipation and the revolutionary spread of the Internet have led to the Indonesian government beginning to integrate ICTs to move towards greater democracy through the improvement of service delivery, accountability and transparency (Johansson, 2016a; Lim, 2013a; Sadat, 2014; Wahid & Sæbø, 2015). The government's eParticipation initiative has developed in response to the growing need for effective communication to break the traditional bureaucracy of the government's relationship with its citizens (Bertot, Jaeger, & Grimes, 2010; Lestari & Moon, 2014; Macintosh, 2008; Mietzner, 2014).

This thesis has also been influenced by the demographic characteristics of Indonesia. Indonesia is situated on an archipelago that consists of more than 17,000 islands and a population of almost 260 million (Statistical Yearbook of Indonesia, 2018). Furthermore, Indonesia has over 700 local languages and cultural characteristics, which means that its citizens are likely to speak a multitude of languages (Gazali, 2014). Moreover, particular contextual issues, such as geographical area, socio-cultural background, and local norms may influence the encouragement or discouragement of social media use. In congruence with this, contextual differences are likely to impose boundary conditions on theories that must be accepted and acknowledged. Thus, when designing and analyzing research, contextual factors need to be identified and considered (Davison & Martinsons, 2016). Notably, it is worth examining social media use at more than one parliamentary level in Indonesia if we are to gain rich insights into its dynamicity our understanding of the phenomenon. In this study, I examine the Indonesian national parliament in Jakarta, the provincial parliament in Daerah Istimewa Yogyakarta and the district parliament in Gunung Kidul, Yogyakarta.

This thesis responds to several motivations for considering the perspectives of different levels of parliament in Indonesia. Firstly, the characteristics of constituents differ from one area to another; this may influence how politicians use social media for eParticipation. Secondly, ICT infrastructure (e.g. Internet availability) in the electoral base may vary across Indonesia, which may place constraints on both politicians and constituents. Thirdly, perception of social media affordance and constraints may vary at each level of parliament according to several aspects identified in this study. Identification of affordances, constraints and facilitating conditions add to our understanding of the role of social media in eParticipation. By so doing, suggestions could be made to the Indonesian government on which factors should be managed and addressed to be able to benefit more effectively from social media. In addition, an important point to note is the extent to which politicians perceive social media as either negative or positive could contribute to the way in which policy makers plan future eParticipation services.

Evidently, there is a need for researchers to focus more strongly on policy, legal issues and wider social context in eParticipation area (Medaglia, 2012). Many legal challenges that arise from the use of social media in eParticipation relate to existing problematic regulatory frameworks (Dini, 2017; Wibowo, 2012; Wicaksono, Sularto, & Asy'ari, 2016). Social media creates possibilities for unique technological behavior and social crimes (Lim, 2013b). As part of this thesis, I responded to these challenges by carrying out a socio-legal study on the dark side of social media in eParticipation (Dini, 2017). In this paper, I discussed and elaborated the taxonomy of Bright ICT and proposed several possible solutions from a social, legal and technical perspective using Bright Internet principles. The principles were used to formulate a solution to restore the eParticipation environment as a gateway towards a Bright society after disruption of social media use in the Indonesian context by dark side effects (Dini, 2017). This thesis also includes, therefore, a discussion of the social media legal framework as part of the research context (see Chapter 3).

Theoretical motivation for this study was also provided by a call for further research to examine affordances, constraints and facilitating conditions of social media use in eParticipation from the viewpoint of politicians. The need to embrace the different affordances and constraints offered by social media according to the different actors involved has been recognized (Majchrzak, Faraj, Kane, & Azad, 2013). The notion of the

action potential of a particular technology artefact is termed as technology affordance (Anderson & Robey, 2017; Majchrzak & Markus, 2012; Wahid & Sæbø, 2015). Furthermore, in the last decade, eParticipation research area has mostly captured the phenomena from a Western viewpoint; as such, our knowledge of emerging economic countries such as Indonesia is lacking (G. F. Khan, Moon, Park, Swar, & Rho, 2010). This study attempts to fill these research gaps by looking at the Indonesian context to better understand how politicians who have particular capabilities related to cultural characteristics, constraining factors, and experiences, use social media differently from others. In addition, it will seek to identify constraints and facilitating conditions of social media use within an eParticipation framework.

In this study, TACT was chosen as a sensitizing tool to guide the data collection and analysis process. The research questions are based on "how" and "what" certain phenomena happened and worked; thus, TACT lends itself well to an exploration of the relationship between a particular technology and human user, the environment within which it operates, and any consequences. I found that TACT can shed light on the relationship and interaction between an object and a user, as well as the actions that are enabled or hindered by an object for a user. Thus, TACT was useful in framing the interrelated research questions (RQ) of this doctoral thesis: RQ1 asked how politicians use social media to map social media affordances by politician, whilst RQ2 asked about the challenges of social media use experienced by the politicians, which are manifested as constraints. When politicians were asked about constraints, some took the discussion some elaborated further on what could be the ideal conditions for a specific affordance to happen. This then led to RQ3, which asked about which facilitating conditions are needed for social media affordance actualization to take place.

Identifying constraints as challenges in social media use can help to understand what kind of conditions should exist for affordance actualization to occur. In this thesis, such conditions are termed facilitating conditions. Understanding these facilitating conditions is important for anyone initiating eParticipation to design best practice for participatory engagement using social media. Therefore, the identification of facilitating conditions is pivotal for effective social media use in eParticipation. It has been noted that TACT can also be used to examine the unintended and undiscovered use of particular technology

(Pozzi et al., 2014; Thapa & Sein, 2018). By so doing, it is expected that this study will contribute by extending TACT to develop a mid-range theory of social media affordances actualization. This can be tested and validated in future research, not necessarily in a completely different context, but in one where the cultural and social norms are similar (Davison & Martinsons, 2016).

This study contributes to practice by identifying social media affordances and then categorizing them into internal and external affordances within eParticipation from the perspective of politicians (Dini et al., 2016). This classification makes explicit the role of social media in eParticipation and can add a new perspective on how and why politicians use social media differently depending on the context in which they use it. Better understanding could also contribute to more effective eParticipation initiative planning by eParticipation stakeholders in general and politicians in particular. *Internal affordances* are those affordances that arise from the practice of using social media between fellow politicians in parliament (Dini et al., 2016), whereas *external affordances* are perceived social media affordances that arise between politicians and their constituents (Dini et al., 2016).

This study also contributes to practice by identifying social media constraints in eParticipation. First, by mapping constraining factors, we can help to identify possible solutions for effective affordance actualizations by appropriating any constraints and turning them into facilitating conditions or by changing goals (P. Leonardi, 2011). Politicians' perception of constraints may influence their choice of social media strategy for eParticipation. Second, this study also contributes to the field of eParticipation by exploring social media strategies and facilitating conditions that cultivate effective social media actualization. Consequently, actors in eParticipation can take full advantage of the potential of social media to make a positive impact. Third, as a contribution to the theory, this study offers a new perspective of the affordances actualization process by introducing the involvement of secondary actors into the process of mindful actualization of a new affordance. The technology affordance actualization model used in existing studies did not mention or acknowledge the involvement and contribution of secondary actors to the main actor's perception of new affordances. Thus, in this thesis I have sought to explain not only the actualization process, but also what happens between affordance perception and

actualization when secondary actors contribute to the process. This adds to technology affordance actualization theory through the inclusion of influential elements during the process of actualization.

1.2   Structure of the Thesis

This doctoral thesis consists of seven chapters made up of five published papers and assembled into an integrative essay *(kappa).* After presenting the background study and problem formulation in Chapter 1, the structure of the thesis is as follows (Figure 1.2)
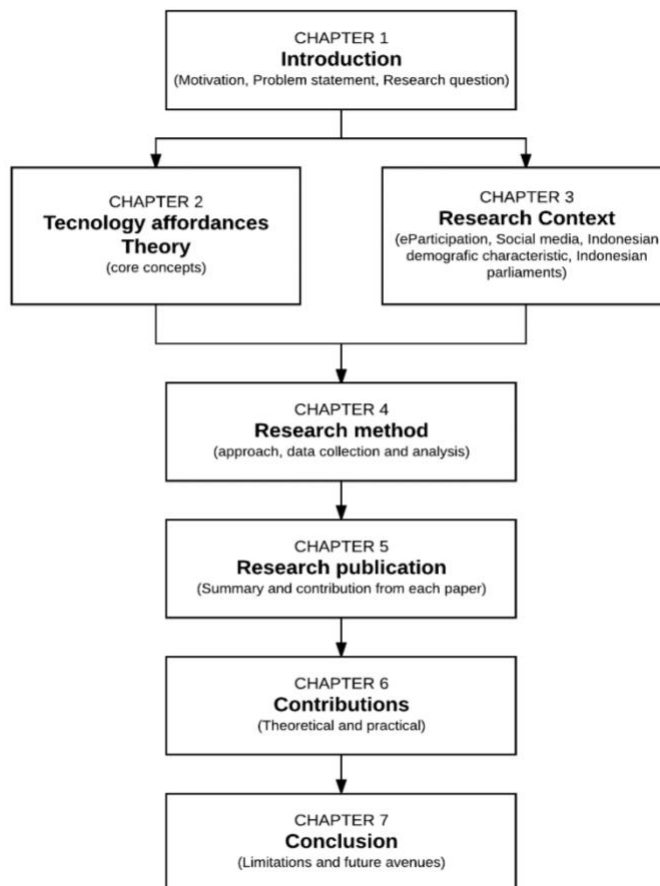
Figure 1.1 Structure of the Thesis

Chapter 2 presents the core theoretical concepts of technology affordances and constraints used in this study as a lens to examine the phenomenon. This chapter explains the concept of the affordances actualization process, including affordance perception, actualization and effects and how they have been developed in the Information Systems field. Each section includes an explanation and case study to demonstrate the research carried out.

Chapter 3 describes and explains the research context of this thesis, including the demographic, cultural, political and historical characteristics of Indonesia and what makes Indonesia particularly interesting for general readers. This chapter presents a recent literature review on social media use in eParticipation. This chapter also explains the country's democratization process, the development of eParticipation in Indonesia using social media, and the structure and function of the country's parliamentary system.

Chapter 4 explains the methodology employed, including the research approach and philosophical positioning. It also describes the approach used for data collection and analysis, as well as a discussion on, and justification for, the validity issues of the thesis.

Chapter 5 presents a summary on the research publications and their contribution. This chapter also presents the correlation between each of the published papers, in chronological order, which forms the basis for this thesis.

Chapter 6 presents the implications of this thesis, including contributions to theory and practice. Discussions relate to the way in which politicians use social media, politicians' social media strategies, and the social media constraints and requirements for conducive conditions (facilitating conditions) of social media use in eParticipation. Research implications include the classification of internal and external affordances, the identification of social media constraints and strategy, as well as facilitating conditions. This chapter also proposes a new perspective on the feedback loop affordance actualization process that conceptualizes unintentional and mindful affordance actualization. Practical contributions include the identification of social media strategies by politicians, facilitating conditions, solutions to the dark side (constraints) of social media use in eParticipation

from a technical, legal and social perspective, and the identification of a context-specific constraint that can help eParticipation stakeholders in similar contexts to design effective initiatives using social media.

Finally, Chapter 7 presents an overview of the thesis. In addition, this chapter also notes any limitations of this study and recommendations for future research within a similar scope of interest.

2 Literature Review and Theory

This chapter presents recently published literature on the development of social media within the eParticipation domain. It begins with a section that covers the negative and positive outcomes of social media use for eParticipation, together with any research gaps. This is followed by a description of the core concept of Technology Affordances and Constraint Theory (TACT), which is the primary theoretical perspective used in this study.

2.1 Current Research of Social Media in eParticipation

In 2008 Macintosh defined eParticipation as the use of Information and Communication Technologies (ICTs) to broaden political participation by enabling citizens to connect with each other and also with their elected representatives (2008). The development of eParticipation has been growing exponentially with the expansion of online technology, including social media. Over the past 10 years, social media use has become a quintessential component of eParticipation in the area of public service improvements (Dini et al., 2018; Pflughoeft & Schneider, 2019) and in the strengthening of citizens' interactions with the government. The rise of social media use in these areas is the result of increased availability and easier access to the type of information used to facilitate government decision-making processes (Alzouma, 2015; Bertot et al., 2010; Dwivedi et al., 2017). Furthermore, social media also plays a key role in explaining political and social interaction among internet users (Dwivedi et al., 2017; Vicente & Novo, 2014). Likewise, improved interaction with government via social media is seen as an effective way to enhance citizens' perceptions on trust in the government (Song & Lee, 2016). Previous s studies have pointed out that enhanced trust in the government is one of the perceived benefits of using social networks in eGovernment (Picazo-Vela, Gutiérrez-Martínez, & Luna-Reyes, 2012).

The interactive communication between government and citizens via social media channels makes the overall process trustworthy and can lead to improved citizen engagement in eParticipation (Alarabiat, Soares, & Estevez, 2016; Pflughoeft & Schneider, 2019). This is evident in the presidential campaigns of Barack Obama in 2008 and 2012, both of which were highly successful. They highlighted the importance of political communication

through online media as effective campaign tools to increase citizen participation. As a result, more political actors began to adopt a similar approach through social media use (Dwivedi et al., 2017; Gerodimos & Justinussen, 2015; Rahman & Prihatini, 2019). This aligns with the aims of eParticipation; namely, to use digital tools to facilitate improvements in democratic governance and thus encourage inclusion, transparency, and participatory outcomes (Ertiö, Tuominen, & Rask, 2019; Hampl & Jaňurová, 2019; Ingrams & Schachter, 2019; Khutkyy, 2019; Medaglia, 2012; Sæbø, Rose, & Skiftenes Flak, 2008). Participatory outcomes in eParticipation have two dimensions: (1) interaction between society (citizens) and government administration (public servants); and (2) interaction between society (citizens) and politics (politicians) (Pirannejad, Janssen, & Rezaei, 2019). In this doctoral thesis, eParticipation focuses on the second dimension, in which politicians themselves are the main actor. In this paradigm, citizens and politicians are seen as collaborating in the process of policy and political decision-making through direct and indirect technology-facilitated initiatives (Pirannejad et al., 2019) at different levels of eParticipation (Macintosh, 2004).

The most basic level of eParticipation is *eEnabling*, a one-way relationship in which government has the monopoly to produce and deliver information for citizens (Macintosh, 2004). The majority of local governments' eParticipation initiatives only contribute to the *eEnabling* aspect of eParticipation, because social media are merely used to disseminate information (Adrees et al., 2019; Hampl & Jaňurová, 2019; Sandoval-Almazan, 2019). Government-led eParticipation initiatives are mainly informational and do not promote interactivity, because they usually focus on information dissemination, e-service delivery and fostering transparency. Subsequently, the overall impact of eGovernment on enhancing eParticipation and democratic processes has been modest (Alarabiat et al., 2016; Girish, Williams, & Yates, 2014). The next level, known as *e-Engaging*, is where citizens are invited to present their opinion to government in a two-way relationship, such as consultation or discussion (Macintosh, 2004). Examples of *e-Engaging* include the use of letterboxes, comment sections and interactive features on government websites and the official social media of government and politicians (Dini et al., 2016; Hampl & Jaňurová, 2019; Khutkyy, 2019). Finally, *e-Empowering*, the highest level of eParticipation, is where citizens are actively engaged in the process of policy making (Macintosh, 2004). Achieving this level depends on a country's political system: the more democratic the nation, the

higher the probability that it will reach this level (Fedotova, Teixeira, & Alvelos, 2012; Pirannejad et al., 2019). Data show only a few research studies have sought to examine this level of eParticipation, where deliberative democratic decision-making benefits from an accessible public forum that has the support of the state (Dini et al., 2018; Pflughoeft & Schneider, 2019). Empowerment perception by citizens is essential because, once citizens feel empowered, they are more likely to recommend any eParticipation tools they use to others. Thus, they may invite them to join or amplify eParticipation ideas through their use of social media (Naranjo-Zolotov et al., 2019). In practice, some examples of eParticipation have shown positive results; nonetheless, only a few have had an observable influence on the policy-making process (Alarabiat et al., 2016) because of the time it takes for eParticipation impact to become evident (Hassan & Hamari, 2019).

The power to connect through the Internet is an authentic social power because *"as well as enabling and empowering, it threatens and disrupts"*(Kozinets, 2015, p. 15). Despite all the positive outcomes of social media use for eParticipation discussed above, the same infrastructure that can empower democracy can also be used for authoritarian purposes. This is evident from the 2019 Global Inventory of Organized Social Media Manipulation report (Bradshaw & Howard, 2019). This report highlights the way in which government agencies and political parties have used social media to spread political propaganda and suppress fundamental human rights. Computational propaganda using social media tools has become more common in authoritarian countries to control freedom of speech and expression, to oppose political opponents and to silence dissenting opinion against government (Bradshaw & Howard, 2019). Notably, Facebook remains the number one platform for social media manipulation in 56 countries through an organized computational propaganda campaign that uses cyber troops (Bradshaw & Howard, 2019). Cyber troops are employed as a propaganda tool carried out through social media technologies. Cyber troops refer to government or political party actors tasked with manufacturing manipulative public opinion online (Bradshaw & Howard, 2019). Research studies have shown that the impact of the Internet on the development or quality of democracy is ambivalent: it can enrich and enhance democratic values and processes, but at the same time it can constitute a stress factor for democratic processes and harm the quality of democracy (Bradshaw & Howard, 2019; Kneuer, 2016; Tucker, Theocharis, Roberts, & Barberá, 2017). Consequently there is little understanding of whether and how digital media use influences

democratic processes and, in particular, whether it has led to any perceptible improvement in the quality of democracy (Kneuer, 2016).

Governments expect citizens to interact actively with them. Such interaction does not just happen intuitively, but must be intentionally designed (Kreijns, Kirschner, & Jochems, 2003; Wright & Street, 2007; Yueping Zheng, 2017). Where eParticipation applications have a high level of functionality, citizens are expected to be able to more easily interact with public officials, consult on government decisions, and participate in online consultations or discussions about policy issues (Yueping Zheng, 2017). A study of various eParticipation projects found a positive impact between tools that were attractive and easy to use and rate of participation (Lacigova, Maizite, & Cave, 2012).

Despite the positive perception of social media use in eParticipation, there is still a lack of understanding about the use of social media from a politician's perspective. Further research is still needed if we are to improve our understanding of the role of social media in the way that eParticipation actors interact in the decision-making process. This doctoral thesis seeks to bridge this gap by exploring the interaction process between politicians and citizens, and between politicians themselves, using TACT as a lens to investigate social media affordances, constraints and facilitating conditions. This could help explain factors that influence interactions between eParticipation actors through social media use and are an important reference for politicians and government to design effective eParticipation planning. In this thesis, I have also tried to highlight the importance of context in the role of social media use in eParticipation, because contextual aspects can determine how ICT is conceived in a particular setting (Sein & Harindranath, 2004). Contextual issues are important factors in understanding eParticipation conditions and development. They help to inform policy makers in the policy-making process. Therefore, this thesis considers the importance of contextual factors in the analysis process, where they are used to gain holistic insights into the empirical case.

2.2 Technology Affordances and Constraint Theory

James J. Gibson, an ecological psychologist, first coined the Affordance theory in the 1970s as a theory about perception. His purpose was to understand how actors perceive the

potential of available objects in the environment. According to Gibson's original conception, affordances relate to what is offered, provided, or furnished to someone or something by an object; thus, when we look at objects, we perceive its affordances rather than its qualities (Gibson, 1977, 1986). For example, a glass affords a person the opportunity of drinking. According to Gibson, therefore, actors do not process what they see through cognitive filters, but rather they process the information intuitively by focusing on affordances. The idea that affordances do not need to be perceived to be actualized is based on Gibson's concept (Gibson, 1986; Volkoff & Strong, 2017). This original definition is somewhat ambiguous about whether an affordance is a property of an object or the relationship between an object and an actor. Figure 2.1 below shows the transition timeline of affordance theory from ecological psychology to IS domain. This timeline begins with Gibson's conception of affordance theory in the late 1970s and ends with ecological psychology in the IS domain in 2008, a year where there began an upward trend in the number of articles on affordance theory in prominent IS journals (Wang et al., 2018). As shown below, each affordance scholar represented in the timeline has made a significant contribution to the transition of affordance theory use in IS field.

Transition Timeline of Affordance Theory

First articulated the original Affordance Theory in 1977 in ecological psychology field. Affordance Theory is a theory about perception. Affordances are action possibilities available in the environment to an actor.		The first author to apply original concept of affordance from ecological psychology to technologies (understood as IT artifact). Affordance is an opportunity for action. Affordance is emerging from the relationship of IT artifact and organizational features		Affordances as "goal-oriented action possibilities" Affordance is functional, embeded and designed by the designers in the object. They pointed the importance of "goals" that the users of a technology pursue. Information about affordances affect its actualization	
GIBSON 1979	**NORMAN 1988**	**HUTCHBY (2001)**	**ZAMMUTO et al (2007)**	**MARKUS&SILVER (2008)**	Upward trend in Affordance Theory application in IS
	Brought affordance theory in the Human Computer Interaction (HCI) field. Norman's view of affordances relates to the usability of an object perceived by users. Regret his use of the term that deviated from the original tenets.		Used Affordance Theory to capture the interplay between information technology and the organization in IS field. Affordances emerged from the relation between IT systems and organization systems. Relational view of affordance		

Figure 2.1 Transition Timeline of Affordance Theory

In 1988, Don Norman, a cognitive psychologist from America, introduced Gibson's affordance theory to the fields of Human-Computer Interaction (HCI) and technology design (Norman, 1999). According to Norman, affordance is the uses of objects as perceived by users. He later expressed regret at how the term was used and further stated that from the start he should have used the term perceived affordances since his focus was on how easily a user could comprehend how to use an object (Norman, 1999). Hutchby was also among the first authors to apply affordance theory, moving from the ecology to technology domain to explain the relationship between IT artefacts, people and organizations (Hutchby, 2001). According to him, affordance is embedded in the relationship between users and the properties of any artifacts with which they interact (Hutchby, 2001). Thus, people could achieve multiple outcomes through the perception of technology based on their own goals (Wang et al., 2018).

After some debate, ecological psychologists have come to a consensus that affordance is a property of the relationship, and could be defined as an opportunity for action (Hutchby, 2001; Stoffregen, 2003). In this way, an affordance for drinking from a glass relates to the actors who encounter it; whilst this exists for most people, this is not the case for animals or babies. Hutchby's relational thinking on affordances is similar to scholars' early conceptions of affordance theory in the Information Systems (IS) domain, where they argued that affordance is relational between the subject and the object. This argument holds the middle ground between social constructivism and technological determinism (Hutchby, 2001; Majchrzak & Markus, 2012; Volkoff & Strong, 2013; Zammuto, Griffith, Majchrzak, Dougherty, & Faraj, 2007). Likewise, IS scholars and ecological psychologists hold different opinions on whether affordances need to be perceived by actors.

In general, technology affordance is the potential for behaviors associated with achieving an immediate concrete outcome to arise from the relationship between an artifact and a goal-oriented actor (Strong et al., 2014; Volkoff & Strong, 2017). Affordance exists interdependently of perception and it remains latent, which has no effect until it is actualized by a goal-oriented actor (Volkoff & Strong, 2017). The concept of technology affordances and constraints has received more attention from the field of Information Systems (IS). Over the last decade, researchers have explored the technology-involved practices of particular individuals or organizations as well as their consequences (Anderson & Robey, 2017; Majchrzak & Markus, 2012; Pozzi et al., 2014; Strong et al., 2014; Treem & Leonardi, 2013). Technology affordance is the action potential of particular technology artefacts in relation to the actors and context in which they are used (Anderson & Robey, 2017; Majchrzak & Markus, 2012; Wahid & Sæbø, 2015). Majchrzak and Markus referred to technology affordance to *"an action potential, that is, to what an individual or organization with a particular purpose can do with a technology or information systems"* (Majchrzak & Markus, 2012). On the other hand, technology constraints are ways in which an individual or organization can be held back from achieving a particular goal when using a system (Majchrzak & Markus, 2012). Both are understood as relational concepts, where potential interactions between people and the technologies they use may enable or constrain the users from accomplishing their goals (Pozzi et al., 2014).

However, as affordances are just action potentials, several studies have recognized that they need to be actualized by a goal-oriented actor to have an outcome (E. Bernhard, Recker, & Burton-Jones, 2013; Strong et al., 2014). How they are perceived and actualized is contextually influenced by social, cultural and technical factors (Thapa & Sein, 2018). Therefore, a particular technology may have different potentials for different actors, depending on their capabilities, socio-cultural backgrounds and skills in relation to their goals.

Process view frameworks of affordance actualization have explored whether perceived affordances, if supported by facilitating conditions, could create the emergence of new affordances (E. Bernhard et al., 2013; Pozzi et al., 2014; Thapa & Sein, 2018). The actualization of an affordance can be a way for new affordances to emerge. When this occurs, these new affordances are not perceived as the main affordance actualized by the actor; rather, they emerge as an effect of actualizing the main affordance. For instance, an actor may perceive and actualize an information-sharing affordance by sharing a status update on Twitter as the main affordance. Later, feedback from the actor's followers led to their perception that it was an opinion-gathering affordance. If that actor had not actualized information-sharing and not received great feedback, they would not have perceived it as an opinion-gathering affordance.

Sometimes the emergence of a new affordance is unintended, and the actor is unaware of its existence; indeed, it could have been actualized unintentionally by the main actor. Unintentional actualization of an affordance has been raised by earlier scholars, on occasion, but without exploring the detail of the actualization process (Dini et al., 2016; Thapa & Sein, 2018; Volkoff & Strong, 2017; Yingqin Zheng & Yu, 2016). Unintentional actualization involves a dependence network of affordance in which some affordances may support other affordances or may interfere with them (Volkoff & Strong, 2017). furthermore, social forces such as cultural norm within which the actors operate also affect how affordance will be actualized. Thus, there is a need to consider how the presence of other people using the same object for related purposes will affect an actor's behavior (Volkoff & Strong, 2017).

Earlier research has examined the emergence of new affordances by examining an original actualized affordance that led to the perception of a new affordance (Thapa & Sein, 2018). Perception of a new affordance can be actualized or remain as a perception, depending on the availability of a facilitating condition (Thapa & Sein, 2018). An actor may actualize an affordance without being aware of its existence at all (Volkoff & Strong, 2017). In that case, an actor does not need to perceive an affordance to actualize it, although mindful actualization could make the user of an artifact more effective (Volkoff & Strong, 2017). In this context, mindful actualization refers to an actor's awareness when actualizing a particular affordance to achieve goals that have been set at the start of perception. The extent of an actors' affordance awareness will affect the actualization process but not the existence of an affordance, because affordances exist whether or not an actor is aware of them (Volkoff & Strong, 2017). Case studies that demonstrate the unintentional actualization of new affordances are shown in section 6.1.3.

Accordingly, affordances as theoretical "action potentials" exist whether or not knowledge of actualization has been acquired (Volkoff & Strong, 2017). Figure 2.2 below shows the basic construct of social media affordance actualization in eParticipation based on the case study. Although this figure is based on the empirical case, it is expanded on through the theoretical section to make it easier for the reader to compare what happens in theory with what happens in practice. The figure will be gradually developed in the theoretical sections that follow.
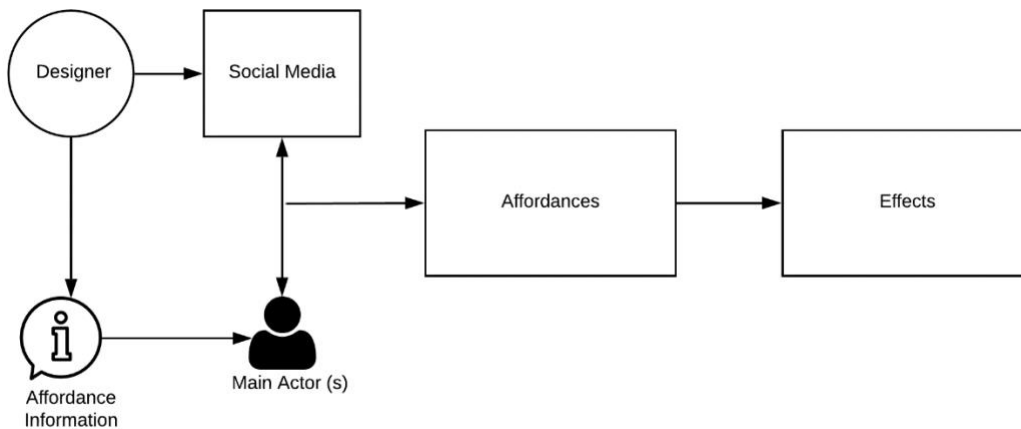
Figure 2.2 Social Media Affordance Process in eParticipation

Social media engineers have designed social media technologies for particular purposes. For instance, Facebook was originally designed as a way for people to manage social contact, remind them of events such as birthdays, and serve as an archival repository which offers access to past memories (Kaun & Stiernstedt, 2014). The designer's intent and purpose is manifested in technology configuration and features of social media that give potential users information about affordances. However, Facebook users come from different educational, cultural, social and political backgrounds and, thus, use Facebook in a way never intended by its designer, such as product campaigns or service selling (Haucap & Heimeshoff, 2014), crowdfunding (H. Zheng, Li, Wu, & Xu, 2014) and political campaigns (Gerodimos & Justinussen, 2015). Actions taken by social media users are influenced by the availability of information shared in various ways, such as an object's features and external information (E. Bernhard, Recker, & Burton-Jones, 2014; Pozzi et al., 2014). Affordance information is the term used for any information about affordances that is offered to users by an object (Reed 1996, Shaw et al 1982). Affordance information forms a user's perception of a particular object which will encourage or discourage their actions. In addition, it includes symbolic expression and external information, which are sourced both from the object itself and from external factors. In the following chapter, I will develop the case study further, as well as build upon Figure 2.2 .

To respond to the research questions, it was necessary to focus on how politicians use social media. I began by examining the actualization process of various social media affordances to explore the actions taken by politicians using social media for eParticipation purposes. I then went onto examine any constraints by looking at the challenges of social media use that could lead to the identification of facilitating conditions. The following section explains the concept of affordance perception, affordance actualization and the affordance effect in the actualization process.

2.2.1 Affordance Perception
Perception is the process of recognizing and becoming aware of the existence of an object's affordances (E. Bernhard et al., 2013; Greeno, 1994). Affordance perception can be misperceived; indeed, actors may not realize this until after an unsuccessful attempt at actualization or a successful actualization has been perceived by other actors. Perception

is influenced by: (1) an actor's capabilities, (2) an actor's goal, and (3) affordance information, such as symbolic expression and external information (E. Bernhard et al., 2013; Greeno, 1994; Pozzi et al., 2014).

Some scholars have argued, however, that the existence of affordance is not always influenced by perception; rather, that affordances exist regardless of whether or not they are perceived, and whether or not there is perceptual information for them to exist (Pozzi et al., 2014; Strong et al., 2014; Volkoff & Strong, 2017). Affordances are action possibilities that only have some tangible influence when actualization takes place (Pozzi et al., 2014; Thapa & Sein, 2018). Figure 2.3 focuses on the process of perception of social media use in eParticipation by politicians based on field data from Figure 2.2, shown above.
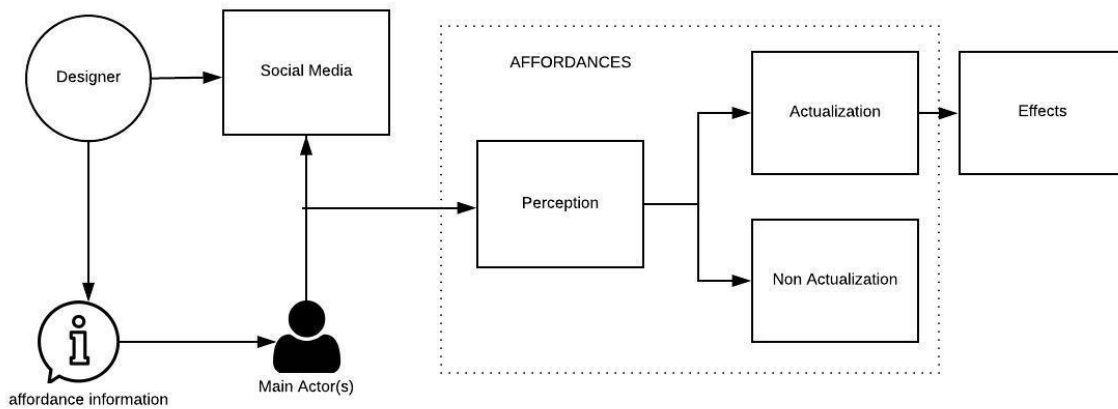
Figure 2.3 Social Media Affordance Perception in eParticipation

In this model, affordance is present in the relationship between social media and the goal-oriented main actor (politician) and is influenced by the existence of affordance information, such as object's features and external information. An actor's capability to carry out an activity, their goals and affordance information all influence perception and actualization (E. Bernhard et al., 2013; Pozzi et al., 2014). Information about affordance includes the symbolic expression of the object and external information, which does not need the object to be present (E. Bernhard et al., 2013; Pozzi et al., 2014). Symbolic expressions relates to the information or messaging that originates from the object and communicated with its users (Markus & Silver, 2008). The symbolic expression of a

technology object can also be interpreted as the messages that the designer intends to communicate to users on how they must interact with the object to achieve their goals (Markus & Silver, 2008). Nevertheless, social media as a sub-system of a technology artefact may also express messages that were not intended by its designers. Thus, the symbolic expression of an artefact is not always perceived correctly, may not lead to any intended goals, or may even be wrongly perceived (Markus & Silver, 2008).

Examples of symbolic expressions used in this study include technology configuration and such features as social media's user interface, status column, photo upload bar, search tool and tagging of friends' symbols on Facebook, Retweet or Like symbols on Twitter, and the subscription and live buttons on YouTube. Another source of affordance information is external information that comes from the external factors of the object's presence (E. Bernhard et al., 2013). Examples include the SOP set up by the designers, any particular directions for using a social media service and customer support, and any information from sources that are external to the object itself. It can be argued that both sources of affordance information can exist separately where each source has an individual and direct effect on affordance perception (E. Bernhard et al., 2013). Thus, even when there is an absence of external information, symbolic expression can still lead to affordance perception and vice versa (E. Bernhard et al., 2013).

The link between the state of being aware of the existence of affordances (affordance perception) and turning potentialities into action (affordance actualization) has not yet been clearly demonstrated in existing IS affordance literature (Volkoff & Strong, 2017). If one was only to perceive affordances without acting taking any actions, no tangible outcomes would be yielded (Pozzi et al., 2014; Strong et al., 2014; Volkoff & Strong, 2013). However, the process view shown in Figure 2.3 does not always strictly represent what happens in real life. For instance, in practice, there are times where an actor may not perceive the affordance, so may actualize an affordance unintentionally. Furthermore, the actor may be aware that the affordance exists but may not proceed to actualization. Possible causes of non-actualization may also include the perception of a constraint or absence of facilitating conditions to support the action (Anderson & Robey, 2017; Thapa & Sein, 2018) or actor has shifted goals (P. Leonardi, 2011). When an actor bypasses the perception process of affordance and moves straight to action, this can sometimes lead to the

unintentional actualization of a particular affordance. Such actualization does not always correspond to the original intended use of an object and, as a consequence, new affordances may emerge. The sequence shown in the figure is not always strictly adhered to, as affordance perception can come after the actualization process has finished. Thus, Figure 2.3 in the affordance actualization section will be expanded upon to accommodate this finding. This example explains unintentional actualization of affordance as well as the relationship and boundary between perception and actualization.

2.2.2 Affordance Actualization

The existing literature highlights the need for future studies to study the difficulties encountered by individuals during affordance actualization (Strong et al., 2014). This study responds to such needs by first identifying the constraints of a particular technology in affordance actualization. This then allows us to seek solutions that can turn constraints into facilitating conditions through the process of actualization. According to Gibson, an actor processes information about an object in an intuitive manner, without necessarily needing to go through the cognition process; in other words, an actor can actualize an affordance without being aware of its existence at all, not even at intuitive level (Volkoff & Strong, 2017). In this thesis, I have conceptualized the bypassing of the perception stage and jumping straight to actualization as the unintentional actualization of new affordances.

Affordance actualization can be defined as: *"the actions taken by actors as they take advantage of one or more affordances through their use of technology to achieve immediate concrete outcomes in support of organizational goals"* (Strong et al., 2014 p. 15). Recent developments in affordance theory have suggested that the actualization process can be influenced by many factors, including the strength of the relationship between the capabilities of the actor and the features of the technology, conditioned by the characteristics of the actualization context (Anderson & Robey, 2017) and facilitating conditions needed to support the actualization process (Thapa & Sein, 2018). The first is termed affordance potency, where the actualization of an affordance is available at different levels of potentiality based on the actor's capabilities, system features and the actual context of use. In the latter case, it can be argued that there are certain conditions that should exist, such as social networks, an actor's capabilities, and other resources to support

actualization (Anderson & Robey, 2017; Thapa & Sein, 2018). Figure 2.4, which expands on Figure 2.3, uses case studies from Indonesia to show the process of affordance actualization, and the influence of constraints and facilitating conditions of social media use in eParticipation. This figure will be further developed in the discussion section of the results and in discussions about this study's contribution to empirical findings.
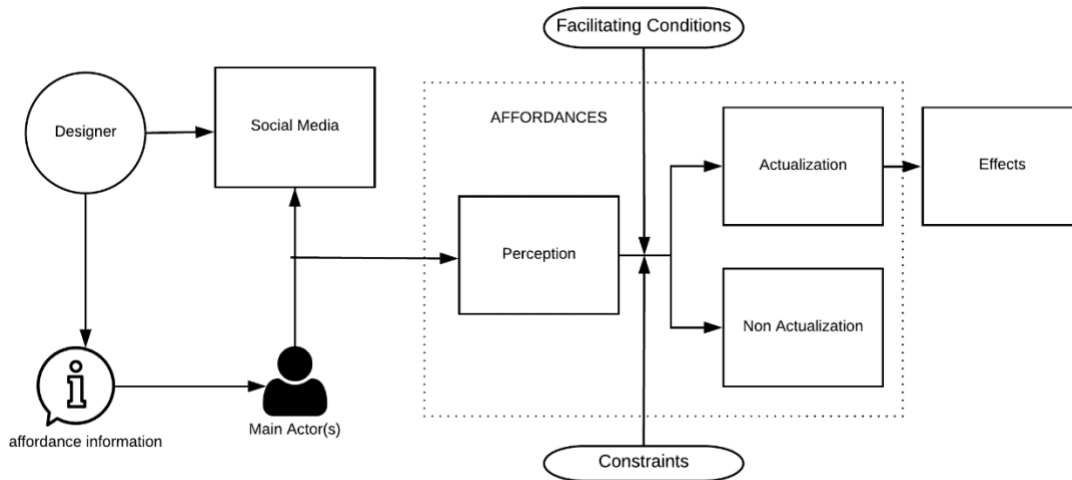
Figure 2.4 Social Media Affordance Actualization Process in eParticipation

Figure 2.4 expands on the previous figure by adding two main factors that influence the social media affordance actualization process: facilitating conditions and constraints. Affordance actualization is the act of turning possibilities into action. The action taken by a main actor or actors can be seen as the behavior of taking advantage of one or more affordances through the use of technology in a socio-cultural context to achieve a concrete outcome (Pozzi et al., 2014; Thapa & Sein, 2018). Affordance arises from the relationship between a goal-directed actor and an artefact; thus, in the actualization process, a technical artefact does not have any affordances except in relation to a goal-directed actor (Volkoff & Strong, 2017). A specific actor does not have to be involved, therefore, until the actualization process occurs (Volkoff & Strong, 2017). Affordance perception is influenced by the availability of affordance information, which can be either symbolic or external information (E. Bernhard et al., 2013).

According to Volkoff and Strong, affordances may trigger additional affordances. These are termed an affordance dependency network, where the actualization of one affordance may support the emergence of other affordances (2017). Research in this area has highlighted the fact that affordances can be first perceived and then actualized; however, the actualization of an affordance, and the achievement of any goals, can sometimes lead to an outcome which gives rise to a new affordance (Thapa & Sein, 2018). One should note that not all perceived affordances end up in actualization. For instance, in a case where an actor perceives more constraints than facilitating conditions, and where there is no potential for facilitating conditions at the moment, the actor is not likely to proceed to actualization. This perception of constraint arises because of the absence of facilitating conditions. In turn, the user's goals are shifted and/or users cannot figure out how to achieve their goals with the technology given (P. Leonardi, 2011). Hence, if the perceived affordance is not connected with an actor's goals, that actor is most likely to choose not to actualize the affordance (Anderson & Robey, 2017) or change his goals accordingly (P. Leonardi, 2011).

In summary, in accordance with existing literature on technology affordance, the actualization process depends on the presence of enabling, stimulating and releasing conditions that can appear as either facilitating conditions or a constraints, such as: (1) technology configuration, functionality and features, (2) the actualization of previous affordance (dependency network of affordances) (P. Leonardi, 2011; Pozzi et al., 2014; Volkoff & Strong, 2013), (3) the degree of effort an actor has to invest in the actualization process (E. Bernhard et al., 2013), (4) an actors capabilities and goals (E. Bernhard et al., 2013), (5) organizational and environmental structures and demands, (6) inability of an actor to perceive an affordance despite its availability, (7) willingness to change behaviour, (8) the organizational level of skills and knowledge, and (9) financial, social and political support (Thapa & Sein, 2018). Relevant elements for the case under study will be used to discuss the affordance actualization process in the following sections. For example, in order for a particular affordance to be actualized, several conditions need to be met: an actor has to be capable of carrying out a specific task, and has to have financial and technological support as well as a big social network. If such conditions are not met, it is not possible to actualize the affordance and have an effect. Factors that contribute to the opportunities (facilitating conditions) or difficulties (constraints) encountered by actors as

they take action to realize affordance is as important as the actualization itself and, as such, deserve to be paid greater attention by researchers (Pozzi et al., 2014; Strong et al., 2014).

2.2.3 Affordance Effect

Theoretically, the actualization of an affordance may result in affordance effects that include: (1) enabling conditions for additional affordances, (2) development of additional IS features, (3) actualization of a new affordance and/or (4) enabling individual and organizational changes (Dini et al., 2016; P. Leonardi, 2011; Pozzi et al., 2014). The outcome generated from the actualization of affordances in the short term is called the immediate concrete outcome. A specific expected outcome from realizing an ultimate goal is called an affordance effect in the long term (Pozzi et al., 2014; Strong et al., 2014). By connecting social media affordances with associated user characteristics, ultimate goals and capabilities, we can design artefacts that are easier to understand and use. We can also ensure that training needs match the characteristics of factors that contribute to actualization. When an ultimate goal is achieved from affordance actualization, the process model is completed. However research shows that after a goal has been achieved, new affordances may be perceived (Thapa & Sein, 2018). Reverse perception in the affordance process model, whereby perception comes before or after actualization, shows that the emergence and actualization of affordances are interdependent and connected processes that form part of a trajectory of affordances (Thapa & Sein, 2018). In this thesis, reverse perception in the affordance process is conceptualized as the unintentional actualization of new affordances from the original affordance. The effect of unintentional actualization can be described as the value-neutral use of the effects of an object by its user. Value-neutral effects mean that the outcome does not necessarily correspond with the main goal of the actor. Furthermore, the actor may not be aware that they are actualizing a new affordance, thus, the action is value-free for the actor, himself.

In summary, whilst there is an increased interest in studying affordances in the IS field, not many studies have sought to explain the choice of acting or not acting on affordances that lead to actualization (Anderson & Robey, 2017). Failure to perceive affordances and disconnection from the actor's goal are among the reasons why affordances do not develop into actualizations (Anderson & Robey, 2017; P. Leonardi, 2011). Other issues include the absence of facilitating conditions (Thapa & Sein, 2018). When actors are unable to

accomplish their goals using a technology artefact and current routines, they develop a workaround to address perceived constraints or change their goals based on the perception of affordances and constraints (P. Leonardi, 2011). Thus, *"...when people evaluate technology they see either affordances or constraints based on how the technology fits with their current goals"*(Anderson & Robey, 2017 p.102). One should also note several unresolved issues, including the argument as to whether or not affordances need to be perceived to be actualized, because an actor may actualize an affordance unintentionally (Volkoff & Strong, 2017). This issue raises some interesting questions, such as whether a particular level of awareness is needed for effective use, or whether there are certain types of affordance that make it more likely that unintentional actualization will occur (Volkoff & Strong, 2017).

Table 2.1 shows the contribution made by TACT to developing a more holistic understanding of the empirical phenomenon under study. Table 2.1 outlines the nature of explanations provided by TACT, the reasons why it was chosen for this study and how each concept is relevant to answering the research questions posed in this thesis.

Theory	Nature of Explanation	Why it has been chosen	RQ
Affordance Perception	This concept helps to explain how politicians with particular capabilities and goals use social media differently from others.	a. Allows for the identification of social media affordance information. b. Allows for the identification of emerging affordances by politicians for eParticipation in a specific context. c. Explains factors that contribute to unintentional affordance actualization. d. Explains factors that contribute to mindful affordance actualization.	1,2 and 3*

Affordance Actualization	a. This concept explains why the actualization of a particular affordance may enable individual changes. b. It also helps to explain why mindful actualization could be more effective for actors, especially in order to achieve their ultimate goals.	a. Gives an opportunity to investigate politicians' use of social media in unintended ways. b. Useful to identify constraining factors of social media use that need to be managed to be able to embrace the full potential of social media for eParticipation by Indonesian politicians c. Useful to identify facilitating conditions of social media affordance actualization d. Useful to explain the process of unintentional actualization of new affordances that can turn into mindful actualization.	1,2 and 3*
Affordance Effect	The concept explains the effect of introducing social media in a particular setting (e.g. parliament).	a. Has the strength to explain the correlation of emerging new affordances and the underlying reasons why it appears. b. Useful to explain the importance of secondary actors in the actualization process of new affordance.	1,2 and 3*

Table 2.1 Summary of the nature of explanations provided by TACT

*RQ 1: How do politicians use social media for eParticipation purposes?

*RQ2: What are the constraints of social media use within eParticipation?

*RQ3: What are the conditions needed for social media affordance actualization to take place?

3 Research Context

This chapter describes aspects of eParticipation practice using social media from within the general context and within the specific Indonesian context. I begin with an exploration of the current landscape of social media use in eParticipation. This is followed by an explanation of the Indonesian research context. Finally, I give an overview of Internet and social media use in Indonesia, its political system, eParticipation practices, and the social media legal framework.

3.1 Indonesia in Brief

Indonesia is an archipelagic tropical country in South East Asia. It is the largest island nation in the world, both in terms of population and total land area, which amounts to some 1,904,569 km2, and consists of more than 17,000 islands. Geographically, Indonesia lies near the Equator, in between the Indian Ocean and the Pacific Ocean. Indonesia comprises of five main islands: Sumatra, Kalimantan (or *Borneo*, the third largest island in the world), Sulawesi, New Guinea and Java (the most populous island in Indonesia, as well as in the world) and two primary archipelagos, The Maluku Islands and Nusa Tenggara.

In terms of social and cultural context, Indonesia exhibits linguistic and multi-ethnic diversity that is characterized by a collectivist society in which its people value group interests over individual interests (D. W. Irawanto, 2009). Culture is deeply connected with such factors as symbolism, family interaction, values and languages within the nation (D. W. Irawanto, 2009). Java itself, the Indonesian island chosen as the subject of this study, is home to more than 60% of Indonesia's population. Indeed, and around 45% of Indonesia's population is ethnic Javanese (Central Intelligence Agency, 2020). Indonesians are, in general, concerned about the welfare of others, are tolerant when mistakes are made, and generous. They are careful not to upset other people because, as Indonesians, they uphold the value of collectivism, something that is fundamentally rooted in Javanese culture (D. W. Irawanto, 2009). Furthermore, Indonesia's organizations are characterized by a particular leadership style, where leaders are seen as father figures who are expected to show wisdom and honesty (Gani, 2004). Such values can be linked to eParticipation practise in Indonesia, with Indonesian politicians treating local leaders at the electoral level

according to regional social and cultural norms. For instance, the data show that, despite the availability of technology, politicians at the district level in Gunung Kidul would personally send a letter of invitation to a public hearing to the leader of tribe. The cultural norm is that the tribe's elder should be honoured like their own parents; thus, delivering such an invitation would take place as a face-to-face meeting. Such a sincere gesture, which demonstrates a young person's respect for their elders, is known as *sopan santun*, which means 'politeness'. Furthermore, Javanese speech operates on several levels using a variety of languages. These languages are related to the speaker's cultural relationship to the person they are speaking to, or the person who is the subject of their conversation (Wedhawati, Setiyanto, Marsono, & Baryadi, 2006). Language use depends on such factors as the degree of social level, age, kinship distance and familiarity. For politicians, it is a case of using different levels of depending on with whom they are conversing: the older the person, or the lesser the degree of familiarity with the speaker, the higher the level of Javanese language used. This demonstrates *tepa selira,* a traditional Javanese cultural norm which means 'mutual respect' (D. W. Irawanto, 2009). Hence, both politicians and their electorate are obliged to make sure the relationship in eParticipation is based on mutual respect and politeness if they are to achieve eParticipation goals together.

The number of Internet users in Indonesia is growing exponentially. In January 2019, almost half of the total population of 268 million people had become Internet users. Administratively, Indonesia has 34 provinces, 416 regencies, 98 cities, 7,201 sub-districts, 8,490 urban communities and 74,957 villages recorded as administrative area divisions (Statistik, 2018). In terms of global competitiveness, Indonesia was ranked 36th out of 137 countries in 2018, a rise of five places from the previous year. The World Economic Forum's Global Competitiveness Index gives more than 114 indicators that determine the level of productivity of a country using institutional and policy data (The World Economic Forum, 2019). According to the report, productivity is the main engine for economic growth, rising living standards and greater prosperity (Dima, Begu, Vasilescu, & Maassen, 2018; Forum, 2019).

Indonesia is one country that is considered to show rapid development in such areas as innovative capacity, quality of research institutions and procurement of advanced technology by its government (Statistik, 2018). Furthermore, Indonesia is among the top

users of social media in the world. Indeed, according to the Indonesia Internet Service Provider Association (APJII, 2018), Indonesia has more than 70 million Facebook users and around 30 million Twitter users. The most active users of social media are found in its larger cities, including Jakarta, where the most active Twitter and Facebook users in the world are based. Jakarta is the capital city of Indonesia, its economic centre and is home to the country's central government.

Thus, Indonesia can be characterized as:*"… a young democracy and a political landscape in which a select number of powerful individuals (oligarchs) and families still play a major role in national politics"* (Johansson, 2016a, p. 5). Indonesia's political system is based on democracy, and justice and equality for all citizens (Statistik, 2018). Here, equality includes an equal right to share political opinions to exercise democracy (Lim, 2017). Democracy allows for a distribution of power that is not centred entirely on the government, but also allows for competition and mutual control between groups within government institutions (legislative, executive and judicial), and between social groups and government agencies (Surbakti, Supriyanto, & Santoso, 2008). In this way, the political rights and role of the people outside government are guaranteed and form an important part of the spirit of democracy (Statistik, 2018). Furthermore, since 2004, Indonesia has held direct general elections for the country's governance. The existence of elections is the most fundamental characteristic of a democratic country. From 2004 until the present day (2019), there have been three type of direct elections: legislative elections, presidential elections, and elections of regional heads.

Although Indonesia is home to one of the largest emerging democracies in Asia, in recent years it has slid down the democratic rankings. Indeed, in 2017, when the latest democratic assessment was carried out, the country was given the status of a "flawed democracy" (The Economist Intelligence Unit, 2017). One of the reasons for this is the minority crisis and the strictly applied blasphemy law that was used to suppress freedom of expression in many cyber legal cases in 2017. Freedom of expression, freedom of information and freedom of speech are prerequisites of a democracy in which people can exercise their sovereignty through equality of opportunity to express their political opinions via communication media (Johansson, 2016a; Lim, 2003; Pirannejad et al., 2019). The rapid expansion of online communication media represent a paradigm shift in the role of information in the

political process in Indonesia (Johansson, 2016a). Here, the political process has been exercised through social media to express freedom of speech by political actors to free themselves from the limitation of traditional media that typically provided a one-sided flow of information (Johansson, 2016b). If used effectively, social media, can give political actors the opportunity to participate in an area that in many countries is traditionally controlled by an elite (Johansson, 2016b).

In terms of economics, in 2019, the International Monetary Fund (2019) named Indonesia as South-East Asia's largest economy by Gross Domestic Product (GDP). One study has argued that high-income countries with growing economies are directly proportional to the electronic participation, human development and democracy indices (Pirannejad et al., 2019). Whilst eParticipation initiatives should not be seen as the only building blocks used in democratic systems, their implementation can improve the effectiveness of policies (Pirannejad et al., 2019). Thus, policy makers should encourage the involvement of the general public in political affairs and ensure that people are empowered to do so by providing sufficient resources, such as a good technology infrastructure like the Internet, and supportive regulations (Lim, 2014; Pirannejad et al., 2019).

Researchers now need to focus on the role of online media – namely, social media – that has been growing in Indonesia's democracy in recent years (Gazali, 2014). In the decades following Indonesia's political independence, informational media has developed under the strong control of the state (Lim, 2003; Rahman & Prihatini, 2019). The New Order, as Suharto's regime called itself, lasted until 1998, when it came crashing down. At the time, few could have predicted such a rapid descent. This was a regime that was born and ended in violence. In the time between the regime's rise and fall, Indonesia's growth rates led it from being a poor, largely rural, developing country to being on the verge of joining the Asian Tigers. Today, Indonesia is seen as one of the most intriguing 'live laboratories' for those who study the potential roles of the Internet and social media in the democratization process. Indonesia does indeed have a long and unique experience of this new media (Gazali, 2014).

3.2 Internet and Social Media in Indonesia

Before investigating the role of social media in eParticipation in Indonesia, it is important to investigate how the Internet and social media emerged in Indonesia. After the fall of the Suharto authoritarian regime, the number of Internet users grew rapidly, from approximately 500,000 in 1998, to more than 171 million in 2018 (APJII, 2018). The rapid development of technology, together with the wide range and increasingly cheap costs of Internet services, contributed to this rapid growth in users (APJII, 2018). According to the APJII 2018 survey data, Internet use has penetrated 64.8 percent of the total population. By 2019, Internet access had grown by 10.12% from the previous year, building on growth of more than 600% in the last 10 years (APJII, 2O19).

In the 1990s, during the early phase of political crisis under the Suharto regime, the Internet was largely an alternative medium used by a small segment of society. Indeed, it only began to be commercialized from the mid-1990s (Lim, 2003). Back then, the main means of communication media, such as newspapers, and the radio and television, were dominated by the ruling elite. At this time, the press was under tight control, with a strict filtering process and state censorship (Lim, 2003). From 1990 to 1994, the Internet could only be accessed by universities or research institutions. From 1995 to 1996, the emergence of commercial Internet Service Providers (ISPs) meant that some Indonesians could access the Internet from their homes or offices through an independent dial-up connection (Lim, 2003). Since ISPs were only affordable to some Indonesians, Internet cafés (known in Indonesian as *warung* Internet or *Warnets)* emerged as an alternative access point for the general public (Kristiansen, Furuholt, & Wahid, 2003; Lim, 2003). In Indonesia, the Internet is predominately used to access social media, although many people also use it to access news and entertainment (Susenas, 2018). According to a survey by the Indonesian Central Bureau of Statistics (BPS), these are the three main activities carried out by 70.9% of Internet users (Kata data, 2017). Other activities are: submitting assignments, accessing emails, searching for goods or services online, Internet banking, and selling goods and services.

In Indonesia's political history, the Internet has acted as a "cyber-civic space" in which people have generated collective activism online and translated it into real-world

movements offline (Lim 2006). With the country's expansion of Internet and social media users, the Internet retains its social-political importance in civic society (Lim, 2013). Indonesians use social media for a variety of purposes, which are not always political. For example, social media is also used to maintain relationships with friends and family, share activities, share tips, pictures and any achievements (Lim, 2003). Whilst political content exists, it is located on the fringe of social activities. In the blogosphere, some of the top Indonesian bloggers are political bloggers who are largely disconnected from other types of blogging (Lim, 2013). Social media nowadays plays a significant role in leading public opinion, especially at certain times, such as in the lead up to the election of legislative members and district heads, or presidential elections. At these critical times, social media are used by most eParticipation stakeholders, including the government, candidates and their supporters, media owners, journalists, and activists, all of whom use social media for different purposes according to their own agenda (Gazali, 2014). Such stakeholders are convinced that social media has an overwhelming political influence and, therefore, can be used as a force for democracy. Nonetheless, the actual impact of social media in the political arena in general, and specifically in the advancement of democratization, remains unknown.

If one considers the diverse nature of social media platforms, it is clearly difficult to manage any legal consequences arising from social media use. Social media can lead to a wide spectrum of legal consequences, ranging from hoaxes, online defamation and hate speech to the unauthorized dissemination of protected works, identity thief and so on (Dini, 2017). In Indonesia, social media is neither governed by a particular law nor a unified legal framework; instead, many legal actions relating to social media have taken place within conventional regulatory frameworks for existing sectors. For instance, the practice of selling goods or services online through social media is governed by e-commerce law and consumer protection law.

The two laws used today in Indonesia to regulate the legal consequences of actions carried out through electronic media and social media are: Information and Electronic Transaction (IET) Law number 11 (2008), and its amendment, IET Law number 19 (2016). The IET Law regulates several prohibited acts, such as decency, gambling, defamation, threats and

extortion. Illegal access, illegal interception, data interference, system interference, and misuse of device are also among the prohibited acts regulated by the IET Law.

With regard to eParticipation, unlawful opportunities through social media platforms include freedom to hate, privacy infringement, defamatory actions, illegal interception, spread of disinformation and data interference (Andrews, 2012; Lim, 2017; MacKinnon, Hickok, Bar, & Lim, 2015; Papathanasiou et al., 2013). Whilst it was believed that the IET Law would create and support the eParticipation environment in Indonesia, it actually created a new problem: impediment of freedom of expression (Dini, 2017). A discussion of this problem takes place in Paper 5. In eParticipation, the main role of social media for citizens and politicians is to practice freedom of speech and freedom of expression. Nevertheless, 10 years on from the enactment of the IET Law in 2008, more than 245 cases derived from the IET Law have been recorded (SAFEnet, 2108). The IET Law has created an ambiguity in its enforcement and, consequently, has created legal uncertainty. Only through legal certainty will the public have clarity of their rights and obligations in accordance to the law (Dini, 2017; Wibowo, 2012; Wicaksono et al., 2016). Thus, the IET Law can be seen as a problematic regulation, particularly in terms of one article on cyber defamation which can be used to silence reports that criticize people in power. For this reason, the law needs to be re-evaluated. Most importantly, law enforcement agencies need to assess, in advance, whether there are elements of an imbalance in power relations in the reporting of IET Law cases, and to make that information part of their legal considerations. As reported in data gathered by the Southeast Asia Freedom of Expression Network (SAFEnet), people in power and professionals dominate the reporting of IET Law cases.

In terms of the problematic cyber defamation clause in the IET Law discussed above, several examples can be found in case studies of eParticipation in Indonesia (Dini, 2017). In general, defamation law should reflect the principle that public figures, including politicians and government officials, are required to tolerate a higher degree of criticism than the general public. Similarly, penal sanctions, such as imprisonment, should not be applied to defamation cases (Hussain, 1999). Indeed, it has been suggested that the only legitimate purpose of defamation laws is to protect someone's reputation; thus, defamation claims should only apply to individuals and not flags, states, or certain groups. Hence, defamation laws should never be used to prevent criticism aimed at governments (Dini,

2017). In this thesis, I argue that cyber defamation cases are more appropriate under civil law jurisdiction rather than criminal law, because civil law can lead to the remedy of damages caused by wrongdoing, such as compensation and actions to restore honour and reputation (Dini, 2017). Thus, legal, social and technical solutions can be used to restore social media use in eParticipation in Indonesia and create a Bright society after disruption from the dark side of social media (Dini, 2017). The paper on the dark side of social media shows legal constraint on social media use in eParticipation namely unsupportive regulations that could impede social media use for eParticipation actors (Dini, 2017).

3.3 Political System in Indonesia

The momentum of democratization in 1998 was captured by various forms of change in Indonesia's real politics. The most dominant was the demand for power distribution, which was previously centralized under the President. Power distribution takes place by strengthening state institutions outside of the executive, such as the legislature and judiciary. Power distribution can also occur through the implementation of regional autonomy, where some of the authorities that were previously the responsibility of central government are now managed by the region (Statistik, 2018). Indonesian government acts as a constitutional republic, whilst governance operates as a presidential system. A republican government takes its mandate of power from its people through a democratic voting mechanism and is led by a president as head of state and head of government. Since the 4th amendment to the 1945 Constitution of the Republic of Indonesia, the People's Consultative Assembly (MPR) consists of members of the House of Representatives/Parliament (DPR) and members of the Regional Representative Council (DPD), selected through direct general elections (DPR-RI, 2018). This institution has the authority to change and stipulate the Constitution, inaugurate the President and/or Vice President and can only dismiss the President and/or Vice President in his term of office according to the Constitution. From 2004 to 2009, the number of MPR members was 678 people, consisting of 550 DPR members and 128 DPD members. In the period from 2009 to 2014, the total number of MPR members was 692 people, consisting of 560 DPR members and 132 DPD members (Statistik, 2018).

The DPR operates as Indonesia's central parliament and, as such, has legislative, budget, and supervisory functions. In the New Order era there were two categories of DPR membership: those DPR members elected by the elected political parties, and those DPR members who were appointed from the Indonesian National Army, Police of the Republic of Indonesia and group delegates (Statistik, 2018). Today, DPR and DPD members are elected by the people through general elections. Elections for the DPR are held by a general election commission and take the form of multi-party elections. Elections for the DPD are also held by electoral commissions, but take the form of a contest between individual candidates, representing the first or provincial level administrative regions (Portal Informasi Indonesia, 2018).

As a unitary state, Indonesia places central government as the highest authority, with the administrative regions underneath it only exercising the power delegated to them by central government (Portal Informasi Indonesia, 2018). After the implementation of regional autonomy, the legislative function of the Indonesian parliament extends into regional parliament, including provincial parliaments and district parliaments. The Regional Parliament (DPRD) is a legislative body that represents the people at a provincial or district/city level. Its legislative function includes local regulations, preparation of the budget and supervision of the work of the regional government (Statistik, 2018). These two types of DPRDs are elected by provincial, municipal, and district communities according to their respective regions through a general election. Thus, if central parliament cooperates with the President, the provincial parliament cooperates with the Governor, and the district parliament collaborates with the mayor or regent of the region concerned.

3.4 eParticipation in Indonesia

In the New Order era, the policymaking process was carried out exclusively by the government, without taking into consideration any desires by citizens for a more participatory government. The use of ICTs in participatory government was not common until the fall of the New Order in 1998. Before then, communication media, such as television and radio, were used to build national identity under the massive control of the state (Kitley, 1994; Lim, 2013a). Through eParticipation, citizens were encouraged to use ICTs to take part in the government's decision-making processes to produce a publicly

supported policy (Yusuf, Adams, & Dingley, 2016). In 1998, this all changed and, today, Indonesia is the third largest democracy in the world. With an increased interest in citizen participation and the revolutionary spread of the Internet, the Indonesian government initiated the integration of ICTs to improve government service delivery, transparency, and democratic accountability. Previous studies on eParticipation in Indonesia have examined the rise of the Internet and ICTs in terms of: (i) how they enable users to reach wider audiences and challenge the domination of the state in both the private and public domains (Lim, 2003), (ii) the interplay between the government, market, civil society and media in the Indonesian context (Gazali, 2014), (iii) government-led social media for public service reporting (Dini et al., 2018), (iv) the use of social media by Indonesian political parties (Johansson, 2016b; Rahman & Prihatini, 2019) and (v) levels of engagement in social media and pivotal factors of social media use in policy making by the government at a local level (Nurmandi et al., 2018).

New digital technologies, such as social media, have been pulling Indonesia in two directions: (1) digitalization enables authority to control the mainstream media and encourages a centralized elite power structure, and (2) citizens challenge the elite power structure by using social media to mobilize others (Rahman & Prihatini, 2019). Despite the significant volume of social media users in Indonesia, there are still relatively few studies of the impact of social media on Indonesian politics (Johansson, 2016a). The data show that Indonesians tend to use the four main social media platforms (Facebook, Twitter, WhatsApp and Instagram) for propaganda and to spread disinformation (Bradshaw & Howard, 2019). Even though Twitter is the second most popular social media platform in Indonesia, few politicians seem to have a clear social media strategy for using it (Johansson, 2016b). Furthermore, cyber troops are used in a manipulative social media strategy in cooperation with Indonesian social media influencers, public figures, youth groups, and Internet buzzers (Dini & Wahid, 2017). According to the 2019 Global Inventory of Organized Social Media Manipulation, it shows that politicians, political parties and private contractors are the types of political actors who use social media operation as a propaganda tool in Indonesia (Bradshaw & Howard, 2019). Fake accounts, as well as high profile accounts used by influencers or public figures, are linked with computational propaganda used by cyber troops to amplify a manufactured narrative or silence political dissent (Bradshaw & Howard, 2019; Dini & Wahid, 2017). Furthermore,

human-run accounts are more effective for computational propaganda, because they engage directly by commenting or by messaging individuals on social media. They account for 87% of those countries being studied that use human-run accounts (Bradshaw & Howard, 2019). Below, Table 3.1 gives a brief history of the development of the Internet and social media use in eParticipation in Indonesia.

Year	Main events or status
1980s	• Internet was introduced to Indonesia via connection made by Universitas Indonesia (UI). UI joined UUNET in 1984, making Indonesia among the first nations in Asia to enter the Internet world (Lim, 2014)
1990s	• Internet was only available to elite group of society, creating inequality (Lim, 2003). • Internet access was only through university or research institutions (Lim, 2003). • Under New Order regime, all communication media were heavily controlled by the government (Lim, 2003; Tapsell, 2015)
1994	• First built permanent internet link from Indonesia via Science and Technology Network IPTEK-Net (Lim, 2014)
1995	• The emergence of private commercial Internet Service Providers (ISPs) (Lim, 2003). • The emergence of Internet kiosks or Internet cafés, offering a cheap alternative Internet point of access for the public (Wahid & Sæbø, 2014).
1998	• First online tabloid in Indonesia named "Indonesia Baru" (New Indonesia) (Lim, 2003). • Internet made accessible controversial information and criticism towards New Order regime in Indonesia. Monetary crisis happened in Indonesia. Civil society and the Internet appeared as a medium to challenge the domination of the state (Lim, 2003). • Information from the Internet was made available through printed media and newspaper providers started selling copies articles from Internet (Lim, 2003) • Internet became a novel space for information exchange that led to the downfall of the New Order regime in May 1998, which had lasted more than 30 years, from 1966 to 1998 (Lim, 2014).
1999	• Only 21,052 internet hosts with 900,000 users (Lim, 2003)
2001	• Association of Internet Kiosks in Indonesia (AWARI) was established. They advocated a more reasonable telephone and internet tariff as well as bringing about a more democratic Internet industry (Kristiansen et al., 2003). • Internet kiosks were allowed to operate without permission from Department of Communications. • M-Web, a South African Internet company, set up the biggest internet kiosk network in Indonesia. It created more than 1,500 kiosks in just a year (Lim, 2003) • Increase in number of hosts to 46,000 and 4 million Internet users.
2008	• The Law on Information and Electronic Transactions Number 11 (2008), known as ITE Law, is a regulation to protect the interests of the private, state, and the public from cybercrime threats. • The policy makers at that time included three articles on defamation, blasphemy, and online threats that were considered able to fill the regulatory vacuum to ensnare criminals using information technology in the category of cybercrimes.
2009	• The Gecko vs Crocodile movement emerged on Facebook as proof of the role of social media to bring together citizens who agreed to protect the Corruption Eradication Commission (KPK) from a group believed to want to undermine the KPK

	by declaring that the KPK was nothing more than 'a gecko dealing with crocodiles'. This movement has millions of followers, and hundreds of people can be mobilized organically to stem the efforts to destroy the KPK (Gazali, 2014; Lim, 2013b). • First time Indonesians were aware of social media use in political campaigns.
2012	• Politicawave.com research found support from social media users and volunteers significantly helped Joko Widodo (then a Jakarta governor candidate, now an incumbent president of Indonesia) and Basuki counter the attacks and win the 2012 gubernatorial election, despite some controversies on religious and racial allegations towards them (Gazali, 2014)
2013	• The launch of LAPOR, a novel and pioneering example of a government-made social media platform for eParticipation that now involves 560,000 users and more than 470 government organizations throughout Indonesia (Dini et al., 2018)
2014	• Massive use of social media for presidential election purposes by all eParticipation stakeholders and deemed 'the social media election' (Tapsell, 2015) • Some 64 initiatives have been born on the Internet through platforms, websites and mobile apps that seek to improve democracy. All initiatives were outside the partisan initiative or born by the mass media. • Politicians began to use computational propaganda via social media to spread disinformation.
2019-present	• Facebook cooperated with the General Election Commission (KPU) and the Election Supervisory Body (Bawaslu) and involved third parties in the process of checking facts to combat the use of hoaxes in the upcoming 2019 electoral process (Setyowati, 2018) • FB supported civil participation by sending out notifications as reminders so that users will participate in the upcoming presidential election in April 2019 (Setyowati, 2018) • With regards to Indonesia's upcoming presidential election, WhatsApp also launched a campaign titled "Share Joy, Not Rumors" in print media, radio and online media (Setyowati, 2018) • WhatsApp updated the reporting feature to make it easier for users to report potentially false issues and hoaxes found on the platform (Setyowati, 2018) • Authority and politicians continued using social media with different strategies, including nominal, genuine, instrumental as well as manipulative strategies and using computational propaganda as a tool for information control.

Table 3.1 Development of Internet and Social Media for eParticipation in Indonesia

4. Research Method

This chapter explains the research approach taken in this study, together with the methods of data collection and analysis used. It also includes a discussion on credibility and authenticity issues.

4.1 Research Approach

This study is based on a qualitative-interpretive case study approach (Walsham, 1995), which assumes that social media use for eParticipation is a socially constructed reality. The main goal of qualitative data analysis is to understand the search for coherence and order (B. Kaplan & Maxwell, 2005). Having adopted an interpretive-qualitative method to develop an understanding and interpretation that answers the research questions, a hermeneutic circle was used for the sense-making process in analyzing rich text data.

Interpretive research generally describes aspects of the world by offering a detailed account of a specific social setting, process, or relationship to uncover how people feel about the world and make sense of it from their particular vantage point (King, Horrocks, & Brooks, 2018). In interpretive research, there are no predefined dependent and independent variables, although researchers are required to focus on the complexity of human sense-making as the situation emerges (Walsham, 2006). Interpretive research can help an IS researcher to understand human thoughts and actions in a social and organizational context and has the potential to produce deep insights into the phenomena (Klein & Myers, 1999). In interpretive study, knowledge of reality is gained only through social construction, such as language, consciousness, shared meanings, documents, tools and other artefacts created by human actors (Klein & Myers, 1999; Walsham, 2006). Furthermore, this philosophical stance views reality as a "*an intersubjective construction of the shared human cognitive apparatus*", where each actor is considered to construct his own reality (Walsham, 1995, p. 75). In accordance with the focus of my research on how politicians use social media for eParticipation purposes this includes any challenges and an interpretive focus on the complexity of human sense-making as the situation emerges (Klein & Myers, 1999).

In so doing, I used the principle of a hermeneutic circle to move back and forth iteratively between the different interpretations of the field study materials. Consequently, the use of theory is more as a sensitizing device to view the world in a certain way, whereas the usual output from case study research is a conceptual framework or mid-range theory (Klein & Myers, 1999; Walsham, 1995). A hermeneutic circle was used in the analysis process to understand a complex whole from preconceptions about the meanings of its parts and a understanding of the parts by reference to the whole context (Klein & Myers, 1999). A hermeneutic circle refers to the dialectics between the understanding of the text as a whole and the interpretation of its parts in a circular relationship in which description is guided by anticipated explanations (Gadamer, 1976; Myers, 1997).

In this non-proactive research study, I positioned myself as an external researcher. This differs from proactive research, where researchers are involved in taking actions toward change-oriented goals (Baskerville, 1999). Outside researchers carry out a study mainly through formal interviews, with no direct involvement in the field. I also used *netnography* or Internet ethnography, whereby I indirectly immersed myself in what it means to be part of a social media community by signing up to and joining a community to get an understanding and direct sense of how its members interact. Netnography is a form of ethnography that is adapted to the study of online communities (Kozinets, 2007). Furthermore, a case study approach fits my interpretive study because it involves frequent visits to the field site over an extended period of time and has a particular focus on human interpretation and meanings (Walsham, 1995). A qualitative case study is also the preferred strategy to answer 'how' and 'why' questions, which are in line with the research questions posed in this study.

4.2 Selection of Cases

My literature review indicated a lack of research on social media use from politicians' perspective in the context of developing countries (Dini & Sæbo, 2016). In addition, I identified a need to focus on social media constraints and how to overcome them. It is also important to acknowledge the significance of studying a specific context. The choice of research context is a significant factor in determining the degree of influence on both practice and future research avenues (Davison & Martinsons, 2016). Indonesia was chosen

as the context of this study because of my familiarity with the country, having lived there for 30 years. My understanding on the culture and language also offered me an advantage in carrying out an interpretive-qualitative study as an outside researcher. Furthermore, the main task of an interpretive study is to assign meaning and make sense of human thought. The ability of respondents to speak the same language enables the researcher to achieve maximum and effective results. Finally, I have access to Indonesian parliament networks, which made it easier to communicate with their members.

Indonesia's central parliament, herein termed the national parliament (DPR-RI), based in Jakarta, was selected because it is where the main legislative function of the country takes place. The provincial parliament of the Special Region of Yogyakarta (DPRD-DIY) and district parliament at Gunung Kidul, DIY (DPRD-GK) were selected as the case for provincial and district parliaments because in 2017, the Special Region of Yogyakarta, as a province, recorded the second highest information technology development index and also the second highest democracy index by province after Jakarta (Katadata, 2018). By examining the phenomenon from three different levels of parliament, this thesis aims to capture any differences in perspective and offer a more comprehensive landscape of social media use by politicians in the context of the Indonesian parliamentary system.

4.3 Data Collection

The main data collection technique chosen for this study was the semi-structured interview with key eParticipation actors, as guided by TACT. This allowed me to explore the participants' interpretations of the phenomenon. Data were collected from interviews, carried out in a semi-structured manner, where only the key questions (see Appendix A) were prepared. This allowed for adjustments during the interviews to ensure openness, flexibility, and improvisation (Myers & Newman, 2007). I carried out interviews with identified eParticipation stakeholders, including politicians at all level of parliament (national, provincial and district), social media strategists, political activists, citizens, and civil servants. This enables a more in-depth understanding of the phenomena by learning from different perspectives and a variety of results based on interaction with contextual influences (Munkvold & Bygstad, 2016). Informed consent and anonymity were offered at

the start of the study as part of the ethics process for carrying out interviews (Myers & Newman, 2007).

In the first stage, I used purposeful sampling and started with key informants (politicians), who suggested further potential interviewees to be included in the study (snowball sampling). I audio-recorded and transcribed most of the interviews. Two interviews were not recorded, including a phone call interview that could not be recorded because the informants did not allow it. Where this was the case, I took written notes. I conducted all interviews between October 2016 and March 2017. Interviews lasted between 8 minutes and 106 minutes. Tables 4.1, 4.2, and 4.3 below show a list of interviews from the national parliament at DPR-RI in Jakarta, provincial parliament at DPRD-DIY in Yogyakarta city and district parliament at DPRD-GK in Gunung Kidul, respectively. In addition, Table 4.4 shows a list of other interviews that included active citizens with various roles in eParticipation.

No	Position	Length of interview in minutes	List of Social Media
1.	National politician, deputy chairperson of the DPR-RI Commission I on Defense, Intelligence, Foreign Affairs, Communication and Information	45 minutes	Instagram, Twitter, YouTube and WhatsApp
2.	National politician, member of Commission I on Defense, Intelligence, Foreign Affairs, Communication and Information	32 minutes	Personal web blog, Instagram, Facebook, Twitter and WhatsApp
3.	National politician, member of Commission III on Law, Human Rights, Security and Chairperson of the KPK Questionnaire Special Committee	83 minutes	Personal web blog, Instagram, Twitter, YouTube, Facebook and WhatsApp
4.	National politician, member of Commission VIII on Religion, Social, Women's Empowerment	26 minutes (phone call)	Instagram, Twitter, YouTube, Facebook and WhatsApp

5.	National politician, member of Commission V - Transportation, Public Works, Public Housing, Rural Development and Disadvantaged Regions, Meteorology, Climatology & Geophysics	45 minutes	Instagram, Twitter, Facebook, and WhatsApp
6.	National politician, member of commission II in charge of domestic government, regional autonomy, state apparatus and agrarian affairs; and also, the Deputy Chair of the Special Committee for the Village Law.	14 minutes (phone call)	Personal web blog, Facebook, Twitter, YouTube Instagram and WhatsApp
7.	Secretary General of data and information centre DPR-RI	30 minutes	Facebook and WhatsApp

Table 4.1 List of interviews from national parliament (DPR-RI)

No	Position	Length of interview in minutes	List of social media
1.	Provincial politician, chairman of DPRD-DIY	9 minutes	Twitter, Instagram, Facebook, YouTube, WhatsApp
2.	Provincial politician, deputy chairman I of the DPRD-DIY	16 minutes	Twitter, Facebook, WhatsApp
3.	Provincial politician, deputy chairman II of the DPRD-DIY	8 minutes	Instagram and WhatsApp
4.	Provincial politician, deputy chairman of united Democrat (PPP+Demokrat) faction.	21 minutes	Instagram, Facebook, Twitter, and WhatsApp
5.	Provincial politician, chairman of Prosperous Justice Party (PKS) faction.	13 minutes	Twitter and Facebook
6.	Secretary of DPRD-DIY	58 minutes	Instagram, Facebook and WhatsApp
7.	Head of IT department DPRD-DIY	48 minutes	WhatsApp and Facebook
8.	Head of Management of data and information technology centre DPRD-DIY	30 minutes	WhatsApp and Facebook

No	Position	Length of interview in minutes	List of social media
7	Public Relation I of DPRD-DIY	27 minutes	Instagram, Facebook, Twitter, and WhatsApp
8.	Public Relation II of DPRD DIY	27 minutes	Instagram, Facebook, Twitter, and WhatsApp

Table 4.2. List of interviews from provincial parliament (DPRD-DIY)

No	Position	Length of interview in minutes	List of social media
1.	District politician, member of Indonesian Democratic Party of Struggle (PDI-P) faction DPRD-GK.	14 minutes	WhatsApp and Facebook
2.	District politician, member of Prosperous Justice Party (PKS) faction of DPRD-GK	11 minutes	WhatsApp
3.	District politician, deputy chairman of the National Mandate Party (PAN) faction DPRD-GK.	10 minutes	WhatsApp and Facebook
4.	District politician, member of the National Mandate Party (PAN) faction DPRD-GK	9 minutes	WhatsApp
5.	District politician, member of Great Indonesia Movement party (GERINDRA) faction of DPRD-GK.	15 minutes	WhatsApp and Facebook
6.	District politician, member of Prosperous Justice Party (PKS) faction.	13 minutes	WhatsApp
7.	Head of IT department DPRD-GK	13 minutes	WhatsApp

Table 4.3 List of interviews from district parliament (DPRD-GK)

No	Position	Length of interview in minutes	List of social media
1.	Active citizen, Chairperson of the social media and public affairs of GERINDRA	27 minutes	WhatsApp, Instagram, YouTube, JAGER and Facebook.
2.	Active citizen, Political blogger	106 minutes	Personal web-blog, Instagram, Twitter, Facebook and WhatsApp.
3.	Active citizen, Social media strategist, political campaign consultant, and founder of an independent media institutions that focus on the hottest social and political issues.	62 minutes	YouTube, Instagram, Twitter, WhatsApp and Facebook.
4.	Active citizen, Social media strategist	50 minutes	WhatsApp, Instagram, YouTube and Facebook
5.	Active citizen, Social media strategist	20 minutes	WhatsApp, Instagram and Facebook.
6.	Active citizen, Social media strategist	36 minutes	WhatsApp, Instagram, Twitter, Facebook and YouTube.
7.	Active citizen, founder of WIKI DPR	46 minutes	WhatsApp, personal blog, YouTube, Instagram and Facebook.
8.	Active citizen, podcast content producer that discusses politics, economics and current hot issues	30 minutes	WhatsApp, Twitter, Instagram, Facebook and YouTube.
9.	FGD with 6 members of LAPOR! team	88 minutes	LAPOR

Table 4.4 List of other interviews

The interviews were brought to a close once the majority of the informants started giving data replication or there was redundancy on particular issues and, therefore, no new information about the phenomenon emerged (Bowen, 2008; Strauss & Corbin, 1998). This meant that the data were already saturated. At this point, the informants started giving similar information and no new information, and when informants started to refer to each other when asked for further explanation of the same issues. These interviews were used as my primary method for data collection. Direct observation, participant observations (including netnography), podcast observation and documentary research were used as

complementary techniques to gather a secondary source of information. Direct observation and participant observation took place within the interview process by observing interviewees' gestures, attitudes and other non-verbal signals, and included netnography. Netnography, also known as Internet ethnography, is a form of ethnography that involves participation and interaction with community members over the Internet (McKenna, Myers, & Newman, 2017). I carried out netnography by having interactions with participants in my study using social media. Netnography was used to complement direct observation of the politicians before, during and after their interview. It allowed me to confirm that what they said they did matched what actually occurred on social media by scrutinizing their accessible social media and analyzing relevant content, including blog posts, and Twitter, Facebook, YouTube, LAPOR and Instagram posts. The data collection process involves observing and making a direct copy of an online community's members, interactions and meanings (Kozinets, 2015). In so doing, I copied any relevant conversations on social media between politicians and constituents, as well as between politicians themselves. Then, I included the data in the coding process with the interview transcriptions in NVIVO for analysis. WhatsApp was excluded because of its private nature, which means that content can only be accessed by the account owner. Documents and statistical data related to social media and eParticipation were collected to the extent that they were accessible.

Additional information was gathered through Internet research, including the regular analysis of official social media use by politicians participating in this study, the official homepage of national, provincial and district parliaments, and LAPOR's blog and interview with politicians on social media issues published on YouTube. I also listened to podcasts that were relevant to current issues on social media for eParticipation. A podcast is a programme (either music or talk) made available in digital format over the Internet. I have included as a secondary data source an Indonesian political podcast called Asumsi. This podcast discusses politics, political campaigns, social media, technology and similar issues, and is available on Spotify (Wikipedia, 2019). Table 4.5 summarizes all the data sources, including primary data and secondary data, used in this study. Primary data sources are unpublished data gathered first hand by the researcher from an informant or organization (Myers, 1997). In this study, primary data was gathered from interviews with participants. The process of collecting secondary data (such as documents, information

from websites, podcasts, social media posts, books and articles) was an iterative process that began in 2015 and ran until the completion of this thesis (December 2019). Table 4.6 summarizes data sources from each paper. Appendix B lists the documents and reports that were consulted and referred to during this study.

Source	Remarks	Information
Interviews (Primary data)	Interviews with a total of 36 informants. This figure is made up of 7 informants from national parliament, 8 from provincial parliament, 7 from district parliament, 6 from LAPOR! and 8 interviews with other eParticipation stakeholders.	-7 national politicians -8 provincial politicians -7 district politicians -8 interviews with political activists, social media strategists, citizens, students and blogger -6 LAPOR's members
Observations (Primary data)	Direct and participant observations carried out during site visit at DPR-RI Jakarta, DPRD-DIY and DPRD Gunung Kidul	-Direct observation was carried out in interviews between 2016 and 2017. I observed gestures, selection of word diction and voice tone. -Participant observation through their social media use was carried out before, during and after the interview, and up until this thesis was written
Documents (Secondary data)	National and local regulations, presentations, documents in pdf format, seminars, online news feeds, emails and lecture notes.	See Appendix B
Social Media and Websites (Secondary data)	-Official websites of parliaments at all levels in this study. -Social media content of informants in this study includes fan page accounts and official page accounts, YouTube, Twitter, Facebook and Instagram posts on recent political issues using hashtag. -YouTube accounts that talk about Indonesian politics. -Interviews with political figures and eParticipation stakeholders on YouTube.	See Appendix B
Podcast (Secondary data)	*Asumsi* podcast on Spotify.	-Asumsi Bersuara with Rayestu: Iman shared A1 information on general election 2019, March 19th 2019, duration: 32 min 56 sec. -Asumsi Bersuara with Rayestu: Is Jakarta now more OKE-OCE?, Jan 30th 2019, duration: 45 min 47 sec. -Asumsi Bersuara with Rayestu: Is it true that non-voters equal with ignorant? Psycho Freak?, March 26th 2019, duration: 30 min 37 sec. -Asumsi Bersuara with Rayestu: 4.0 Campaign is successful to gain Golongan Karya vote, June 11th 2019, duration: 45 min 4 sec.

Table 4.5 Sources of data

PAPER	Source of Data	Information
1. Dini, A. A., Sæbo, Ø. (2016). *The Current State of Social Media Research for eParticipation in Developing Countries: A Literature Review.* Paper presented at the 2016 49th Hawaii International Conference on System Sciences (HICSS).	86 papers from searches on Google Scholar, EBSCO, Taylor Francis, The Electronic Journal of Information Systems in Developing Countries (EJISDC), International Development Journal (IDJ).	Included only articles where a combination of three key terms was present (eParticipation, social media, developing countries).
2. Dini, A. A., Wahid, F., & Sæbo, Ø. (2016). *Affordances and Constraints of Social Media Use in eParticipation: Perspectives from Indonesian Politicians.* Paper presented at the Pacific Asia Conference on Information Systems (PACIS), Chiayi, Taiwan.	Primary Data: - 3 national politicians - 3 provincial politicians - 2 social media strategists Secondary Data: Social media posts (Facebook and Twitter), accessible documents from provincial parliament.	Used TACT to analyze the data. Findings: a set of social media affordances, social media constraints, social media affordance effects.
3. Dini, A. A., & Wahid, F. (2017). *Four Strategies of Social Media Use Among Indonesian Politicians.* Paper presented at the International Conference on Social Implications of Computers in Developing Countries (IFIP WG 9.4). Yogyakarta, Indonesia	Primary Data: - 5 national politicians - 5 provincial politicians - 4 district politicians - 3 political activists - 5 political strategists Secondary Data: Social media posts (Facebook and Twitter).	Politicians were grouped according to actualized social media affordances. The results from previous work were then revisited (internal and external affordances) and any patterns identified.
4. Dini, A. A. (2017). *The Dark Side of Social Media in eParticipation: a Socio-legal Perspective.* Paper presented at the twenty-third Americas Conference on Information Systems, Sheraton Hotel, Boston.	- 3 well-documented cases on defamation between 2008 and 2016 selected out of 128 cases - 2 political activists - 4 social media strategists	Critical approach is incorporated as a lens for analyzing the aggregated data to focus on the oppositions, conflicts, and contradictions in contemporary society
5. Dini, A. A., Sæbo, Ø., & Wahid, F. (2018). Affordances and effects of introducing social media within eParticipation—Findings from government-initiated Indonesian project. *The Electronic Journal of Information Systems in Developing Countries*, *84*(4), e12035.	Primary Data: - Interview with 6 management members of LAPOR! - Netnography on LAPOR Secondary Data: -Lapor!'s official blog post -Data on public reporting from *satudata* (Government data portal).	Result: a set of affordances, a set of constraints and a set of affordance effects.

Table 4.6 Data used from each individual paper.

4.4 Data Analysis

In interpretive research, the main focus is on the dynamics of interpretation and reinterpretation, and the complexity of human sense-making as the situation unfolds (B.

Kaplan & Maxwell, 2005). The hermeneutic circle was used from the beginning of the data analysis process through to the writing process, because it involves an iterative thinking process of tacking back and forth between each chapter's details and the whole thesis story. Hermeneutics can be defined as: *"a theory of interpretation within which specific techniques of exegesis are employed in interpreting a text"* (B. Kaplan & Maxwell, 2005, p. 3). Furthermore, *"The hermeneutic circle suggests that we come to understand a complex whole from preconceptions about the meanings of its parts and their interrelationships"(Klein & Myers, 1999, p. 71)*. The contributions presented in this doctoral thesis and accompanying individual papers were the result of iterative analysis. In this doctoral study, the hermeneutic process was iteratively carried out using the thesis data and individual papers, and the whole thesis story, to identify anything missing and reveal new findings. In analyzing the data, I followed the relevant concepts from the hermeneutical exegesis framework put forward by Boland et al. (2010). Hermeneutical exegesis consists of textual criticism, linguistic criticism, literary criticism, historical criticism, form criticism and redaction criticism (Boland et al., 2010). In my data analysis, I followed textual, linguistic, historical and form criticism, as presented below in Table 4.6.

No.	Type of Hermeneutical Exegesis	Application in data analysis
1.	Textual criticism	Enables me to interpret the accuracy of the original interview being analyzed. I transcribed the interviews in a verbatim manner, using punctuation, commas or questions marks as I felt appropriate. I also wrote down laughter, grogginess, stuttering, and other explicit expressions to understand the state of relationship between the respondent and I during each interview, whether a neutral change of information or something withheld.
2.	Linguistic criticism	Enables me to understand the meaning of unique terms or idioms of interview transcription and how familiar words and phrases are used in a distinctive way in this research setting. For instance, some respondents used a mixture of local and national languages in which I had to look for meaning and synonyms in Bahasa Indonesian and then translate this into English, e.g. "*tepa selira* means mutual respect" and "*sopan santun* means politeness".
3.	Historical Criticism	Enables me to understand why using social media to communicate could be an impolite action in the sociocultural setting where the action was carried out.
4.	Form Criticism	Helps me to understand the sources that are important for the respondents and what influences their perspectives. For instance, the perspective of social media as a mistrusted source of information is mainly influenced by the parliamentary tradition whereby opinion from a direct public hearing is taken more seriously than opinions on social media. Such negativity is related to the stigma of social media in their institutions.

Table 4.7 Concepts from hermeneutical exegesis used in this thesis

My use of the hermeneutic circle as a sensemaking tool formed the basis of some of the steps taken in the data analysis process. The first step was to carry out a qualitative data analysis. This involved reading the acquired data to gain familiarity with the sort of things the informants said and did, to develop initial ideas, and to make sense of the meaning of statements and their relationship to other statements or events (B. Kaplan & Maxwell, 2005). Secondly, I transferred all the transcribed interviews, as well as relevant secondary data, to NVIVO, a qualitative data analysis software. NVIVO helped me to facilitate the coding process by organizing the data into categories and establishing meaning for each of the categories. Finally, it helped me to describe a set of affordances, a set of constraints identified as challenges in using social media for eParticipation and a set of facilitating conditions for social media affordances. After these categories were established, I incorporated the data from secondary sources (i.e., other relevant archival documents from podcasts, websites and social media) and put them into the categories derived from the analysis of interview transcripts. Where relevant, I included secondary data in the text as references. TACT was used as a sensitizing device to inform data collection, data analysis and also theorizing (Charmaz, 2006). Table 4.7 gives a conceptual outline for affordances, constraints and facilitating conditions that guided the coding process in data analysis.

Concept	Initial concept
Affordances	Potential actions that emerge from the relationship between actors and social media in practice, associated with the experience, capabilities, and socio-cultural understanding of the actors.
Constraints	Any factors that can hold back actors in achieving goals when using social media are included as constraints in this study.
Facilitating conditions	Conditions needed to facilitate affordance actualization.

Table 4.8 Initial concept for affordances, constraints and facilitating conditions

Thirdly, I developed an initial understanding of the nature of social media affordances. I defined affordances as action potentials that emerge from the relationship between actors and social media in practice, associated with the experience, capabilities, and socio-cultural

understanding of the actors. The difference between the affordances of a particular technology and technology features, themselves, should be noted. Technology features are embedded and designed by the designer for a specific purpose; as such, they may be either affordances or constraints for users, depending on how users perceive the system related to its goals (Dini et al., 2018). Constraints, as a conceptual understanding in the analysis process, can be defined as the ways in which an actor could be held back from achieving their goals when using social media in relation to their work as a politician. Facilitating conditions can be defined as conditions or requirements that are needed in order for social media affordances to be actualized and yield an effect. The presence of constraints and facilitating conditions perceived by politicians plays a mutually influencing role in the actualization of social media affordances.

I then organized the coding process based on the established outlined concepts of affordances, constraints and facilitating conditions into first order and second order categories. This process of making sense of the interview transcripts as first order and second order categories of code was carried out using a hermeneutic circle. Further details about the data analysis process, together with an excerpt of coding, are presented in papers 2 and 5. Table 4.9 shows a brief exemplification of the coding process:

Original Interview text	First Order Category	Second Order Category (Affordances/Constraints/Facilitating Conditions)
"If it is related to several points that need to be documented (as a reminder) for a discussion at the meeting, WhatsApp is really useful for that." (Provincial politician)	Using WhatsApp as a reminder	
"I use WhatsApp not to communicate with my constituents, most of them are farmers where they do not even understand what social media is. Instead I use WhatsApp to discuss things with my colleagues, we use our conclusion stored on WhatsApp for conveying our political stand in the assembly meetings" (district politicians)	Using WhatsApp to store discussions and to draw conclusions	Information storing (Internal affordance)

"I use it to archive my activities as parliamentarians and my thoughts. In the future I will print them out, but prior to that all my ideas, activities and my political stand on particular issue including media coverage are documented by my team on my website." (National politician)	Using a web blog as an archive	
"Social media becomes my secondary tool for aspiration and opinion gathering outside traditional media, I'm more focused on direct work such as discussing the annual budget." (National politician)	Using social media to gather the aspirations of members of the public	Opinion gathering (External affordance)
"Politicians should find out what is going on out there, there is a lot of information being discussed by citizens, one way to do that is to turn to social media." (Provincial politician)	Using social media to keep politicians well informed about current issues	
"People in small cities maybe unfamiliar with a discussion using social media, so the feedback is not yet optimal." (Provincial politician)	Minimum online feedback from constituents because of lack of familiarity	
"Not that much affected, I am more to the real situation when linking it with the making of policy." (National politician)	More concern with the real-life situation	
"My strategist told me that even if I had presence on social media but no offline engagement, it is useless" (National politician)	Online engagement must be accompanied by offline engagement	Minimum impact (Constraint)
"I use WhatsApp not to communicate with my constituents, most of them are farmers where they do not even understand what social media is. Instead I use WhatsApp to discuss things with my colleagues, we use our conclusion stored on WhatsApp for conveying our political stand in the assembly meetings" (district politicians)	No demand from constituents	
"It's only for supporting tool, and it's impossible for me to handle it alone and therefore I hired Akbar	Hired a person to manage social media	

to handle my Twitter and Facebook accounts." (National politician)		Presence of social media manager

(Facilitating condition) |
| *"I have around 710.000 followers on Twitter, can you imagine how can I keep up with all the replies, comments and everything going on online? I can't and that's why I have a team, a photographer, a content creator and also a strategist. I lead them all" (National politician)* | Hired social media manager team | |

Table 4.9 Exemplification of the coding process.

Data reduction and organization was achieved by simplifying complex data through the extraction of recurring categories and themes via coding, and using matrices and charts to display data (Miles, Huberman, Huberman, & Huberman, 1994). In the analysis process, I wrote a descriptive story based on the coded interview transcription. I also synchronously carried out a hermeneutic sense-making process through the iterative processing of interview data and TACT concepts to clarify any emerging concepts (Bryant & Charmaz, 2007; Seidel & Urquhart, 2013). Finally, I focused on the relationship between identified codes and the principle of contextualization. Here, I reflected on the social, cultural and historical background of Indonesia, the context of this study. In this way, the reader can later see how the situation under investigation came about (Klein & Myers, 1999). I then categorized the data into a set of internal and external affordances, a group of constraints, social media strategy, and facilitating conditions as shown in Table 4.8.

4.5 Validity Issues

With regards to validity and reliability issues, the extension of validity is often referred to as generalization (Davison & Martinsons, 2016; A. S. Lee & Baskerville, 2003). In interpretive studies, researcher bias is inevitable and, therefore, the researcher should be explicit in their data selection criteria (Munkvold & Bygstad, 2016). As a qualitative researcher, I acknowledge that personal experiences and theoretical preferences can influence my choice of evaluation questions, data and interpretation. Thus, bias, interests, perceptions, observations, and prior knowledge all play a role in the data analysis process (B. Kaplan & Maxwell, 2005). Validity in interpretive research is about providing details

on how a researcher carried out their research, including the optimal methodological techniques used, and a detailed critical presentation of the research process (Whittemore, Chase, & Mandle, 2001). It is also essential in qualitative research that other researchers do not directly replicate a study but, rather, seek to understand it. Thus, qualitative researchers should ideally consider validity issues throughout the process of research, particularly in the planning and analytic phases (Whittemore et al., 2001).

Rich detail in a case study can be used in the process of generalization from empirical to theoretical statements (A. S. Lee & Baskerville, 2003). For example, Walsham argued that the rich description of a case study can be generalized to concepts, a theory, specific implications, or a rich insight (Walsham, 1995). Researchers can also generalize their findings from one context to another, from one context to a new theory developed by that researcher, and from one context to an existing theory that has been broadened using new findings (Davison & Martinsons, 2016; A. S. Lee & Baskerville, 2003). In interpretive research, the researcher's own subjectivity is brought to bear when interpreting an interview. Researchers' own conceptual thinking also acts as a filter before feeding back a version of events to audiences (Walsham, 1995). Thus, researcher bias is inevitable (Munkvold & Bygstad, 2016). In this study, I sought to generalize from one context to an existing theory that has been expanded on using my own findings on the technology affordance actualization process. Another facet of the generalizability of a study is its usefulness in terms of relevance and practicability (Davison & Martinsons, 2016). This study is particularly relevant if others are able to apply the findings in a purposeful way to inform practice and benefit any relevant stakeholders (Davison & Martinsons, 2016). Thus, I present not just the theoretical implication of this study, but also any practical implications.

4.6 Ethical Issues and Reflections

At the beginning of the data collection process, researchers are obliged to provide participants with information about the nature of the research (i.e., purpose, methods, what is involved, risks, inconveniences, and availability of research results) and how any findings will be disseminated (Israel & Hay, 2006). Confidentiality and anonymity are usually offered through informed consent (Walsham, 2006). The objective of informed

consent is to protect both parties from potential ethical and legal issues that may arise in the future. To give their consent, potential participants must understand the possible risks and benefits of their involvement and also agree voluntarily to be involved in any research (Israel & Hay, 2006). Informed consent must be free from manipulation, coercion and deceit. Researchers can use various methods to gain the consent of potential participants: asking them to sign an informed consent document, return a survey, give consent on a recording tool, or even give verbal consent, depending on the situation. In my case, I needed first of all to get permission from the organization being studied (i.e., parliament) to carry out research. I then offered confidentiality and anonymity to the members of parliament. In this case, two layers of informed consent were needed, at an organizational level and an individual level. For the organizational level, informed consent was included in a research permit which explained the nature of this study. Researchers have argued that consent is unnecessary where the research concerns public officials (Israel & Hay, 2006). Thus, I did not feel it was necessary to offer confidentiality and anonymity because parliament is a public office. At the start of data collection, I tried to contact potential respondents through their available social media as well as by email to ask whether they were willing to participate in my study. In this phase, I established personal direct connection with potential participants before I went on to ask permission from their institution. I found that this way was more effective when requesting a permit at the institutional level because I already had some names of people willing to participate. Certainly, personal network connections play an important role in acquiring a research permit in Indonesia. The next step was to fulfill the requirements set out at each parliamentary level, including research clearance, research proposal and guidance on interview questions.

I applied for research clearance from my home university, Universitas Gadjah Mada (UGM), to carry out data collection at all parliamentary levels in Indonesia. It is in fact a mandatory requirement from parliament to receive research clearance and submit a research proposal that includes interview questions before data collection can begin. I used clearance from my home university because institutions at home and abroad have different research clearance requirements to conduct data collection in parliamentary institutions. Furthermore, my home university offers a greater degree because Indonesia is the context of this study. Nonetheless, in my submitted proposal I explained clearly that this research

project is a collaborative study by UGM and UiA, Norway, under the Search of Balance (ISB) scheme. After I had submitted the research clearance and proposal, and before I could begin data collection, it was necessary to acquire the politicians' schedules.

In the data collection process, it is important to set expectations as to what the interview is about and how long it will last. As we are all aware, parliamentarians are normally very busy and pressured people, operating to tight schedules. It was important to be aware of any time pressures and not take too long in the interviews for fear of becoming a nuisance. This would be unethical and would not lead to the collection of useful data (Walsham, 2006). Consequently, I began by introducing myself, before giving a brief explanation of the purpose of the research. I then explained that informed consent and anonymity are part of the ethical practice of interviewing (Myers & Newman, 2007) and confirmed that I had the participants' consent to record the interviews. I also established the most suitable length of the interview with each participant to ensure that I did not overstay my welcome. From there, I proceeded with the semi structured interview, in accordance with participants' responses. Throughout each interview, I tried to understand the role played by social media and its influencing factors within an eParticipation framework.

Impression management can play an important role in such research; thus, I dressed up or down according to each situation. The key point of doing this was to make sure the respondents felt comfortable and respected, and to minimize social dissonance (Myers & Newman, 2007). I also asked for participants to estimate the amount of time available for the interview so that I could prioritize certain questions and keep within the time limit. Before ending the interview, I asked permission to follow up on any factual matters, if necessary. I also asked each interviewee if they could recommend other potential participants (snowballing technique). Such a technique helps researchers to obtain a critical mass of interview data (Myers & Newman, 2007). In summary, it is important to maintain ethical standards when carrying out data collection, including getting research permissions, showing respect in terms of the participants' time, knowledge and position, and fulfilling commitments to maintain confidences, credentials and anonymity offered at the start of data collection (Myers & Newman, 2007).

5. Research Publications

This thesis is based on five integrated published papers: four are peer-reviewed conferences and one is a journal paper. In this section, I give a summary for each paper and a description of how they contribute to research.

1. Dini, A. A., Sæbo, Ø. (2016). *The Current State of Social Media Research for eParticipation in Developing Countries: A Literature Review.* Paper presented at the 2016 49th Hawaii International Conference on System Sciences (HICSS).

2. Dini, A. A., Wahid, F., & Sæbo, Ø. (2016). *Affordances and Constraints of Social Media Use in eParticipation: Perspectives from Indonesian Politicians*. Paper presented at the Pacific Asia Conference on Information Systems (PACIS), Chiayi, Taiwan.

3. Dini, A. A., & Wahid, F. (2017). *Four Strategies of Social Media Use Among Indonesian Politicians.* Paper presented at the International Conference on Social Implications of Computers in Developing Countries (IFIP WG 9.4). Yogyakarta, Indonesia

4. Dini, A. A. (2017). *The Dark Side of Social Media in eParticipation: a Socio-legal Perspective.* Paper presented at the twenty-third Americas Conference on Information Systems (AMCIS), Sheraton Hotel, Boston.

5. Dini, A. A., Sæbo, Ø., & Wahid, F. (2018). Affordances and effects of introducing social media within eParticipation—Findings from government-initiated Indonesian project. *The Electronic Journal of Information Systems in Developing Countries*, *84*(4), e12035.

5.1. Paper 1: A Literature Review as an Empirical Foundation

Summary. This paper presents a literature review that focuses on the use of social media for eParticipation purposes in developing countries. Existing studies within the field were examined to synthesize the relevant research, and develop a structure and greater conceptual clarity. The literature review was carried out between January and March 2015. In total, 86 papers were identified for the analysis. An approach based on the combination of keywords and a five-staged Grounded Theory was used to construct a firm foundation for advancing this emerging area of research. The findings identified important research issues that could be further addressed by future research within the eParticipation field.

The findings are classified into seven emerging categories: eParticipation Actors, Social Media Technologies, Contextual Issues, Objectives, Research Methods, Theoretical Approaches and Legal Issues. For each category, several sub-categories were identified and discussed further.

Furthermore, this paper provides an overview of the current state of research on social media use within eParticipation in the context of developing countries. As such, it contributes to research about the presence of social media technology, which could potentially increase eParticipation actors' interest in participating in political discourse. How such interest impacts on political change is an issue that should be explored further; indeed, it provides an empirical foundation for this thesis.

Contributions. The main contribution of this paper is that it offers a coherent overview of social media research in eParticipation in the context of developing countries. Key issues, trends and challenges of social media use are analyzed. In addition, important research issues are formulated into a process view model of social media use in eParticipation, which can be used to guide future research. Contributions from previous research and the identification of future research avenues are also included. Theoretical and empirical implications can be used by practitioners, policy-makers and government institutions to better develop their knowledge of eParticipation initiative and any future strategies.

5.2. Paper 2: Affordances and Constraints of Social Media from Politicians Perspective

Summary. This paper explores social media use by politicians using the Technology Affordances and Constraints Theory (TACT) as a lens to guide data collection and analysis. Using an interpretive case study approach in the context of Indonesia, participants included six members of both provincial and national parliament, plus two social media strategists, represented politicians. The objectives of this study were to first identify affordances of social media used by Indonesian politicians in both a provincial and national parliament setting. Second, and again with politicians as the main subject, this paper seeks to identify the constraints of social media use in eParticipation. Finally, it explores and identifies the effects of social media use within eParticipation area. This study revealed both internal and

external affordances of social media, as well as constraints and effects of its use by Indonesian politicians.

The paper's findings show that politicians use social media differently at different levels of Indonesian parliament. Social media affordances were classified into two categories, internal and external affordances, something which had not been carried out in the previous study. The relationship between these categories is also discussed. Constraints such as poor Internet connection, limited capability and legal issues for social media use by politicians are also identified. Also presented are the effects of affordances caused by the actualization of the identified affordances. This study demonstrates how affordances are related to actors and how they emerge from social practices that involve Indonesian politicians' experience, skills and cultural understanding of technology.

Contributions. This paper makes three key theoretical contributions. Firstly, it identifies social media internal and external affordances and the link between the two. Secondly, it identifies constraints that hinder politicians in using social media for eParticipation in several classification groups. Personal, technological, informational and legal constraints are the classification categories for identified constraints. Thirdly, the paper is able to identify the effects of affordances actualization of social media use by politicians. From a practical perspective, this paper provides a description of social media affordances, constraints and effects that allow politicians and regulatory bodies to a design social media strategy for eParticipation.

5.3 Paper 3: Startegy of Social Media Use among Politicians

Summary. This paper is based on work presented in Paper 2. Instead of examining the affordances and constraints of social media use by Indonesian politicians, however, I explored emerging patterns from the identified internal and external affordances and constraints to identify politicians' social media strategies. Interpretive case studies involved Indonesian politicians from national, provincial and district levels of parliament. The findings revealed four strategies for the conceptualization of internal and external affordances that were previously identified and combined with the most recently collected

data. The aim of this paper was to identify the strategies adopted by politicians for the use of social media in eParticipation.

This paper's findings revealed four social media strategies: nominal, instrumental, manipulative, and genuine. A strategy can manifest itself in a variety of forms, however, so it is not easy to conclude whether perceived internal and external affordances will lead to a certain strategy selection of strategy or vice versa. Constraints are also clearly involved in influencing strategy choice. Each of these social media strategies can be affected by different motivations and constraints.

Contribution. This study has two main contributions. First, its practical contribution lies in the identification of social media strategies that may serve to advise politicians on the formation of eParticipation initiatives. Second, its theoretical contribution lies in the conceptualization of internal and external affordances from the perspective of politicians projected by eParticipation concept of information, consultation, and active participation allowing to understand how social media affordances encourage politicians' choice of strategies to promote citizen participation. Thus, this study contributes to the theory of social media affordances by demonstrating that politicians are also motivated by their perception of functional affordances offered by social media. Social media could, therefore, bring about changes to the way that many processes are carried out in an organizational context as well as in an individual context.

5.4 Paper 4: Affordances, Constraints, and Effects of the First government-developed Social Media from an Organizational Perspective

Summary. This paper investigated LAPOR!, a social media project developed by the Indonesian government primarily as a public service complaint-handling system, but also involved in gathering opinions and expectations about government service delivery. This paper discusses the characteristics of the Indonesian context as well as lessons learned for other eParticipation projects in other parts of the world. The objectives of the paper are to explore the affordances and constraints of Indonesia's custom-made social media platform, as well as to understand and identify the effects of it for eParticipation purposes. This study

identified a set of organizational affordances, constraints and effects for the LAPOR! project.

This study's findings revealed that this particular custom-made social media platform has gained strength in terms of political will and citizen participation. LAPOR! has connected Indonesian people and government institutions in encouraging interpersonal civic engagement across age and gender divisions. Even more, the system has revolutionized the way in which the government delivers its services to the public.

Contributions. The main implications of this paper are twofold: conceptual and practical. Conceptual implications include the exploration of consequences from the development of the first custom-made social media-based eParticipation initiative in Indonesia, a country transitioning from an authoritarian to democratic political system. This particular customized social media platform has features that are quite distinct from mainstream platforms. I used TACT to explain the way in which the Indonesian government uses it in practice. In addition, by identifying a set of organizational affordances, constraints and effects, lessons have been learned about the potential for using ICTs at an organizational level in ways that were not anticipated. Practical implications include having developed a greater understanding of the impact of an eParticipation initiative in the context of a young democratic society, including the identification of challenges and constraints. The identification of such constraints can help the Indonesian government to improve the development of LAPOR! by providing solutions for any shortcomings. This study's findings may also be useful for the development of similar custom-made social media initiatives in a similar context.

5.5 Paper 5: The Dark Side of Social Media in eParticipation: a Socio-Legal Perspective

Summary. This paper focuses on restorative Bright ICT, which seeks to capture problems in the use of social media for eParticipation in Indonesia and explore how Bright ICT initiative principles could offer solutions to identified problems. In this study, eParticipation could occur in many forms, including the ability of citizens to use social media to assert public control, criticize government and public services and involve

themselves in a political discourse. This paper addresses its objectives by analyzing three chosen cases of eParticipation that illustrate the diversity that exists in terms of type of eParticipation, application of legislation, and status of the case.

This study's findings show that part of the challenge of social media use in Indonesia derives from problematic legislation on cyber defamation, which gives rise to constraints on freedom of expression. The elaboration of the taxonomy of Bright ICT could propose several options to overcome that problem from a social, legal and technical perspective.

Contribution. This paper makes a major contribution in two ways. Firstly, it has identified constraints to freedom of expression in Indonesia through the use of social media in political discourse. This is demonstrated by a rise in law cases, with over 128 cases between 2008 and 201. These have come about as a consequence of overlapping Indonesian laws, which each have their own requirements for defamation to exist. Appropriation of these three laws should be carried out. Furthermore, cyber defamation cases could be best settled under civil law. Secondly, as a contribution to theory, this paper presents an elaboration of the Taxonomy of Bright ICT, viewing social media role as an IS artefact to overcome constraints to freedom of expression resulting from problematic legislation in Indonesia. In addition, social, legal and technical solutions are proposed #to restore eParticipation as a gateway towards a 'Bright society' after the disruption of the dark side effects of social media use in Indonesia.

5.6 Comprehensive story of the thesis

Together, the five papers presented above come together to create the narrative of this thesis. The relationship between the papers is shown in Figure 5.1 below.
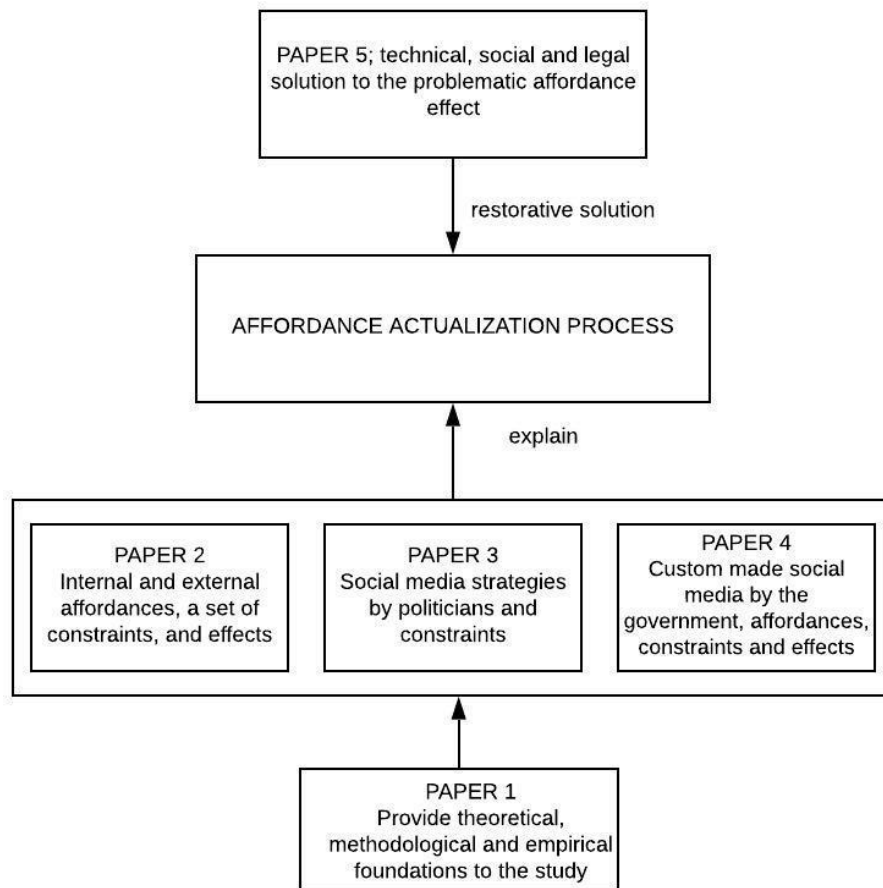
Figure 5.1 Relationships between the individual papers

My first paper, which presented a literature review on social media use within developing countries, served as the methodological and empirical foundations of this thesis. It gave the arguments and reasons for the selection of the research theme for this project. Papers 2, 3, and 4 provided empirical data from examining the affordance actualization process, including the actor (politician), the object (social media), social media constraints and affordance effects. Paper 2 examined social media affordances and constraints from a politician's perspective and classified affordances into internal and external use by politicians. Building on Paper 2, Paper 3 further examined the relationship between identified affordances, constraints and politicians' choices of social media strategy. Paper 4 enriched the narrative by adding a government perspective on custom-made social media for eParticipation and its consequences. This paper identified a set of organizational affordances, constraints and effects of a custom-made social media platform used by the

government. Finally, Paper 5 identified the dark side of social media use in eParticipation in the Indonesian context and suggested a restorative solution to the problem. Table 5.1 presents the contributions made by each paper to the overall narrative of the thesis.

Paper no.	Contributions to the thesis
1	Paper 1 provides a theoretical, methodological and empirical foundation for the main idea of problem formulation in this thesis. It called for studies into the application of social media for eParticipation in developing countries, especially those that emphasize the perspective of individual actors, namely politicians. The findings of Paper 1 were used to strengthen the arguments presented in the introduction and motivations for the study in Chapter 1.
2	Paper 2 presented an empirical finding from the application of TACT as a lens within eParticipation use of social media in Indonesia. It identified a set of social media affordances perceived and acted on by politicians at national and provincial parliaments. More specifically, it classified affordances into internal and external social media affordances by politicians at three level of parliament in Indonesia. Paper 2 identified a set of constraining factors of social media use, labelled as constraints, and grouped them into technological, informational, personal and legal constraints, as well as social media affordance actualization effects from the perspective of politicians. Paper 2 also identified how new affordances emerged from the actualization of a particular affordance with the involvement of another actor, which became the base evidence for the feedback loop affordance actualization process. Finally, Paper 2 provides empirical evidence to justify the argument that affordances are related to actors' characteristics and emerge from social practices involving the technology, experience, skills and cultural understanding of the actor.
3	Building on Paper 2, this paper examined possible emerging patterns from the identified internal and external affordances and constraints to see patterns of social media use by politicians. This paper specifically looked for a strategy of social media use based on the findings on Paper 2. Findings of this paper revealed four social media strategies, including nominal, instrumental, manipulative, and genuine strategies. These are affected by different motivations, and mainly by social media constraints perceived by politicians. This paper contributes to one of the practical implications in this study by advising politicians in the formulation of an eParticipation initiative using social media.
4	Paper 4 examined a government-developed social media platform for a public service complaint-handling system that connects citizens and government through an integrated system – known as LAPOR! This paper differs from others whose unit of analysis is a politician at an individual level. Instead, this paper tried to capture a government's perspective through a TACT lens on custom-made social media to enrich our understanding of social media use within eParticipation. This paper identified a set of organizational affordances, constraints and also effects from the application of this system. More importantly, this paper also presents a discussion of the distinctive features of LAPOR! which was specifically designed for eParticipation purposes. Paper 4 contributes to the thesis by identifying the challenges of developing a custom-made government social media platform, including a context-specific constraint. The Indonesian government can be helped in its development of LAPOR! by providing solutions to to such shortcomings.

	Secondly, findings from this paper may also be useful to similar custom-made social media initiatives developed by governments in similar context.
5	Paper 5 identified the main problem of social media use in Indonesian context: namely, problematic legislation on cyber defamation, which impedes freedom of expression and freedom of speech within eParticipation. This can be categorized as a social media constraint from the legal perspective (i.e., as a legal constraint). In other words, the identified dark side of social media can be classified as a constraint for social media use within eParticipation. This paper contributes to practical implications of this thesis by proposing a solution from a legal, technical and social perspective to counter such disruptive legislation and restore a more conducive eParticipation environment. This paper also reveals the potential for Bright Internet principles to be incorporated in the offered technical solution to combat problems that arise from weak Internet security in eParticipation. This paper also contributes to theory by giving an alternative perspective of social media as an IS artefact, avoiding general simplistic and deterministic assumptions that social media is only a technology artefact.

Table 5.1 Contribution made by each paper to this thesis

6. Contributions

This chapter presents the overall narrative of the social media affordance actualization process within eParticipation from the politicians' perspective. This includes how politicians use social media, the challenges faced, and the identification of the conditions needed for social media affordance actualization. This thesis incorporates the contributions made by each of the five papers summarized in Chapter 5, and takes into account any new implications from the findings that emerged later, after the individual papers had been published. As a whole, this thesis presents three key contributions:

1. Internal and external affordances;
2. Social media constraints and facilitating conditions;
3. Mindful actualization of new affordances.

Contributions from each of these published papers will be discussed briefly, with reference to the papers, themselves. Any new findings will be described in greater detail. The research implications are then grouped into theoretical and practical contributions. Theoretical contributions include the mindful actualization of new affordances, whilst practical contributions include internal and external affordances, as well as social media constraints and facilitating conditions. For the sake of coherence, and the fact that the main theoretical contribution was discovered after answering all research questions, the practical contributions are presented first, followed by the theoretical contributions.

6.1 Practical Contributions

This thesis offers two main practical contributions, which are presented in detail later in this section. Table 6.1 below summarizes the practical contributions offered by this thesis and is further discussed in the section that follows.

Practical Contribution	Description
Internal and External Affordances	Identified affordances are grouped according to how politicians use social media as a representative in parliament.
	• Internal affordances are those that arise from politicians' perceptions of social media affordances in parliamentary activities. Identified internal affordances include brainstorming, information storing, information sharing, peer entertaining, and invitations to events.

	• External affordances are perceived affordances of social media between politicians and constituents. These include value sharing, opinion gathering, political networking, personal branding, maintaining political presence, and promoting participation.
Social Media Constraints, Strategy and Facilitating Conditions	Identification of social media constraints for eParticipation through a search for facilitating conditions that make actualization happen. In this study, the constraints of using social media were mapped and identified as challenges. Solutions can be found for these challenges by identifying facilitating conditions. Constraints also influence politicians' choice of social media strategy. They can be categorized as technological, informational, personal, legal and socio-cultural constraints. • Identified social media constraints in eParticipation include poor Internet connection, limited capability, unreliable information, minimum impact, lack of focus, short-life information, security issues, personal attacks, customary norms and unsupportive regulations. • Facilitating conditions include: good Internet infrastructure with cheap and easy access, capable actors, social media manager or strategist, demand from constituents, supportive regulations, network effect, strong Internet security, involvement of other actors. • Identified constraints influence politicians' choice of strategy for using social media for eParticipation.

Table 6.1 Summary of the practical contributions of this study

6.1.1 Internal and External Affordances

This thesis examines how politicians use social media for eParticipation purposes at three different levels of parliament in Indonesia: national, provincial and district. eParticipation encourages three key stakeholders (citizens, government, and politicians) to establish two-way communication, consultation and dialogue to legitimize decision making by the government (A. Khan & Krishnan, 2017). The study of social media use by elected officials is becoming more important because of its potential to transform the relationship between parliamentary representatives and citizens (Sobaci & Karkin, 2013). Despite a positive association between social media use and democracy, there is still a lack of evidence that is use is bringing about political change. Using TACT, I investigated the potential for social media use for eParticipation from the perspective of politicians. The identification of social

media affordances helps to understand the role of social media in Indonesia's political arena.

An existing study has suggested that, whilst social media use by government is already in place for eParticipation, the aim of generating meaningful dialogue and bottom-up interaction has not yet been achieved. This indicates an inappropriate engagement strategy and ineffective use of social media (Abdelsalam, Reddick, Gamal, & Al-shaar, 2013; Gordon, Osgood Jr, & Boden, 2017; A. Khan & Krishnan, 2017). In terms of citizens, many studies exist which focus on a citizen-centric view of social media within eParticipation (Chen, Ping, & Chen, 2015; Park, Choi, & Rho, 2016; Valenzuela, Somma, Scherman, & Arriagada, 2016). In terms of politicians, there is little consensus. On one hand, politicians' engagement in social media is seen to be ineffective and insufficient to draw attention from citizens and, therefore, has had little impact (Hong S, 2011). On the other hand, with the right strategy, politicians have been successful in using social media for political campaigns aimed at encouraging people to vote (Dwivedi, et.al., 2017). This inability to engage with citizens using social media can be explained by the presence of various identified constraints, including personal, technological, informational and legal c factors (Dini et al., 2016). This thesis builds on research carried out on social media affordances for eParticipation from the perspective of politicians by introducing a classification of internal and external affordances. This could help future policymakers design an effective social media strategy for eParticipation that could make an impact.

Social media use by politicians offers both internal and external affordances. In this case, both are actualized affordances of social media use by politicians. Classifications were derived from the data analysis process, based on the identification of patterns from analyzing and coding the interview transcripts. The two categories of internal and external affordances are based on politicians' goals for using social media with regard to their job as a parliamentary representative. Data show that social media created several perceived affordances, which were acted upon in different ways by politicians at different levels of parliament. Having observed three levels of parliament, the district parliament in Gunung Kidul was the only parliament in which all interviewees perceived and acted on only internal affordances. They did not act upon perceived external affordances because of a

strong customary norm and because of a lack of demand from their constituents because of low Internet penetration.

Internal affordances arise from the practice of social media use between fellow politicians in parliament (Dini et al., 2016). They are so named because no other actors (citizens) are involved from outside parliament in the actualization process. Internal affordances include brainstorming, information storing, information sharing, peer entertaining and invitations to events (see Paper 2). Paper 2 presents a detailed data analysis process, together with an excerpt of coding of internal and external affordances. Table 6.2 below shows a summary of the identified internal affordances.

Internal affordance	Action taken by politicians	Excerpt from the interview
Brainstorming	-Have a discussion on WhatsApp between politicians from the same commission prior to a formal assembly meeting.	*"Before we bring a topic to the formal meeting, we had a discussion with our members to understand it from pragmatic view, regulation and political perspective from each individual." (National Politician)*
	-Use conversation history on WhatsApp as an archival document and a reference for upcoming meetings or hearings. WhatsApp is used as a ready-to-hand note-sharing tool for politicians whenever they have an idea.	*"The discussion (on WhatsApp) usually happens when all members can't directly meet, so whenever we have an idea or perspective we use WhatsApp to have a discussion." (National Politician)*
Information storing	-Use WhatsApp to archive important points for discussions in meetings. -Use personal web blog to archive their activities as a politician as well as comments or thoughts on particular issues. WhatsApp is also used as a press conference channel.	*"If it is related to several points that needs to be documented (as a reminder) for a discussion at the meeting, WhatsApp is really useful for that." (Provincial Politician).*
	-Use personal web and Twitter as channels for conveying thoughts for important current issues without expecting any feedbacks	*"I use it to archive my activities as parliamentarians and my thoughts. In the future I will print them out, but prior to that all my ideas, activities and my political stand on particular issue including media coverage are documented by my team on my website." (National Politician)*
Information sharing	-Use WhatsApp as a sharing channel for politicians to inform fellow politicians about media invitations, talk shows or interviews with media. -Use WhatsApp to circulate important information that is classified within a commission or parliamentary group.	*"If there are friends who have to deal with media or a talk show on TV, they will inform us via WhatsApp." (National Politician)* *"We have exclusive WhatsApp group within the commission to send important information to discuss exclusively only to our member" (Provincial Politician)*

Peer entertaining	-Use Facebook, Instagram and WhatsApp for sending humorous content to fellow politicians.	*"I sometimes used WhatsApp and Facebook to send my colleagues funny picture and story, you know just for intermezzo" (District Politician)*
	-Promote fellow politicians posts by liking, commenting and supporting them on social media. This is basically a considerate gesture to foster relationships that are more fluid and solid.	*"Yes, on Facebook I sometimes read my colleague's post, I clicked like and if the post relevant I sometimes put a comment" (National Politician)*
Invitation of events	-Send an immediate reminder for a meeting through WhatsApp to make sure their members will attend an meeting called at short notice or a gentle reminder for a regular meeting sent a day before.	*"For instance, if we have meeting tomorrow, we remind our friends through WhatsApp" (National Politician)*

Table 6.2 Internal affordances of social media use by politicians

In terms of internal affordances, WhatsApp was identified as the most regularly used social media platform from the data analysis process. WhatsApp offers a cross-platform messaging and voice over Internet protocol (VOIP) service. The application allows users to exchange messages, voice calls, video calls, images, documents, and other media. It can also share user location. According to the latest survey data (2019), in Indonesia alone, some 46% of the total population of Indonesia confirmed that they used the WhatsApp application as their main mobile messenger app (Hootsuite, 2019).

In all the identified internal affordances, almost all politicians mentioned their use of WhatsApp as a ready-to-hand multipurpose social media tool to support their communication activities. This study revealed that WhatsApp offered all internal affordances related to the use of social media for fostering relationships between politicians within parliament. Other messaging services offered outside of social media were also mentioned, including short message services (SMS) and electronic mail (email). However, only a few politicians used those two services on a daily basis. Politicians at all levels, whether district, provincial or national, have been using WhatsApp on a daily basis for a variety of purposes, mainly for coordinating their work and schedule with parliamentary colleagues. How politicians communicate with citizens is a quite different story. In this case, mainstream social media use includes Twitter, Instagram, YouTube and Facebook. WhatsApp, which offers faster information exchange, is more likely to be used for personal connections with people they already know.

For external communication with constituents, politicians were seen to rely on a more generic social media use, including Twitter, Facebook, Instagram, YouTube and official web blogs. External affordances refer to perceived and actualized social media use between politicians in parliament and their constituents (see Paper 2). Those include value sharing, opinion gathering, political networking, personal branding, maintenance of political presence, and promotion of participation. Table 6.3 shows identified external affordances and the empirical action taken by politicians.

External affordance	Action taken by politicians	Excerpt from the interview
Value sharing	-Shared opinion about an issue, such as corruption, on social media posts with the expectation of opening a discussion. The discussion will later be used as a basis for policy design. -Shared ideas and perspectives on social media with the expectation of allowing the public to get to know their representative, based on their ideas	*"It becomes more interesting when it comes to policy, if it is discussed in social media there will be pros and cons, for instance about fighting corruption, it's up to them how they judge my opinion on my social media." (National Politician)* *"We want people to know us first, because we can't meet directly, at least they know us from our ideas and perspective on our social media." (National Politician)*
Opinion gathering	-Opinion gathered from social media as a secondary tool (direct public hearings are the primary tool). For example, opinions gathered from social media are brought to the discussion of annual budgets at the meeting. -Information and issues gathered from citizens' discussions used to better understand public opinion about particular issues before an assembly meeting	*"Social media become my secondary tool for aspiration and opinion gathering outside traditional media, I'm more focused on direct work such as discussing annual budget." (National Politician)* *"Politician should find out what is going on out there, there is a lot of information being discussed by citizens, one way to do that is to turn to social media." (Provincial Politician)*
Political networking	-got to know people offline from online networking. Many politicians are friends with social media influencer, activists and citizens from the interaction they have made online extended into offline space such as offline discussion in an informal forum	*"I met a lot of people I mentioned who acknowledge me from my political stands on social media. I never meet them in person, just from social media." (National Politician)*
Personal branding	-Use of social media to rebrand a politician's online image with the specific aim of reaching out to younger constituents. Politicians have an online team that consists of a photographer, videographer and content maker, who shadow them as they carry out their job to give content updates on social media.	*"At that time, we still accompanied him, we were building his image from a very bad one. So, it's like rebranding." (Social media Strategist)* *"Our goal is to make positive imaging of politicians on social media to approach youth." (Social media Strategist)*

	-Created a positive image online by publishing positive activities and campaigns intended to appeal to younger people. -Shared activities online and invited citizens to assess and manage what they are doing to achieve a better political image.	*"I share my activities so that people know what the representatives are doing, they can control and assess, whether it's right or wrong." (Provincial Politician)*
Maintaining political existence	-Updated social media content regularly to maintain an online profile and thus create an online base for upcoming elections.	*"Social media will become a main tool for political campaign in 2019 so updating posts and creating engaging content from now are our main goal." (Social media Strategist)*
	-Replied to comments and suggestions on social media posts to engage with citizens.	*"Our works in political world also need existence so we turn to social media and work for it. We reply comments, we engage with farmers, activists, students on social media." (Provincial Politician)*
Promoting participation	-Engaged with citizens actively on social media posts by always replying to comments and responses as a gesture of openness by politicians and invitation to citizens to participate in the decision making process.	*"We give information, then people give a response back, the public will think oh he (politician) exists, meaning we (citizen) can join the discussion on social media." (Provincial Politician)*

Table 6.3. External affordances of social media use by politicians

It is also worth noting that internal affordances influence external affordances both directly and indirectly. For instance, as an internal affordance, brainstorming directly gives politicians the opportunity to create better personal branding (external affordance) both on social media and when they are out in public (see Paper 2). Second, information storing on a web blog or Twitter gives politicians the external affordance of value sharing and maintaining a political profile on social media through unintentional actualization (see Paper 2). The unintentional actualization of affordances shows that they may support other affordances or result in the development of a dependence network of affordances (Strong et al., 2014; Volkoff & Strong, 2017).

Social media posts that are published on an ongoing basis by politicians tend to stimulate public engagement in online discussions (Dini et al., 2016). Findings also show that internal affordances tend to have a greater intensity before, during and after an election period, whilst external affordances are at their most intense during the campaign period. This shows that affordances are time bound and may shift with changing goals, before and

after politicians are elected to parliament (Dini et al., 2016). The identification and classification of internal and external affordances of social media from a politician's perspective is something that is rarely dealt with in eParticipation studies (Dini & Sæbo, 2016; Sæbø et al., 2008). By putting politicians at the centre of this study, I gained an increased understanding of the role of social media in eParticipation through the different types of social media affordances that influence politicians' decision-making processes. This classification also has theoretical and practical implications. First, it provides a new perspective on how and why politicians use social media differently, depending on when and with whom they use it. Second, this understanding could contribute to more effective planning of a social media initiative planning by eParticipation stakeholders in general and politicians in particular, because it allows them to prioritize affordances. Thus, eParticipation stakeholders can focus on fostering the conditions needed for the affordance actualization process to achieve its goals. In addition, the classification of internal and external affordances gives politicians the knowledge they need to formulate the most effective strategy for social media use in eParticipation in the future.

6.1.2 Social Media Constraints, Strategy and Facilitating conditions

Constraints and Strategy

The concept of technology affordances lends itself to the identification of both the potential capability of an object as well as its constraints, representing the dual concept of affordances (Hutchby, 2001; Volkoff & Strong, 2013). According to data analysis, constraints influence politicians when they are choosing a particular strategy for using social media (Dini & Wahid, 2017). Identified constraints can be grouped into: (a) technological constraints, such as *poor Internet connection, and security issues*; (b) informational constraints include *short-lived information, fake accounts, and minimum impacts*; (c) personal constraints include *distraction of focus, limited capability and low ICT literacy among constituents*; (d) legal constraints include *personal attack and unsupportive legislation;* and lastly (e) socio-cultural constraints, such as *customary norms* (Dini et al., 2016). Table 6.4 below shows the classification of constraints and politicians' chosen strategies of social media use in Indonesia. One strategy may have more perceived constraints than stated in the table; however, in this category, I included only that group of constraints which had a major influence on the strategy chosen.

Strategy	Explanation	Excerpt	Identified constraints
Nominal	*Nominal* strategy refers to the minimalist approach of politicians' use of social media for two-way communication with their constituents.	*"Internet exposure is uneven in my constituency, so the communication frequency via social media is very seldom to none but I (still) use my blogs for archiving my political activities"* *(National Politician)* *"Not all strategy to gather voice is feasible from online media, for remote constituency with low technology. literacy based on our data, offline activity gathered more impact thus we still use hands-on operation as our main strategy instead" (National Politician-Asumsi bersuara podcast).*	• Technological constraint • Personal constraint • Informational constraint • Socio-cultural constraint. • Legal constraint.
Instrumental	*Instrumental* strategy describes politicians who hire a social media manager because of their lack of ability in using social media.	*"using social media is too time consuming and I can't fully concentrate on my work, thus I hire social media manager even though the content is all from me" (National politician)*	• Personal constraint. • Legal constraint.
Manipulative	*Manipulative* strategy refers to the strategy of hiring a strategist to create a particular image for a politician on social media. The aim is to achieve certain goals by creating provocative political manoeuvres.	*"We were building a better image of politician to approach youth, so it's like rebranding" (Social media Strategist)* *"In fact, if on social media (content) it can be intentionally made wrong, deliberately done to provoke, or provoke his opponent's emotions, and so on. So indeed, this is arguably a new phenomenon that is concerned with filling up actual digital public spaces" (Social media expert-Blog interview)*	• Informational constraint. • Personal constraint. • Legal constraints

| Genuine | Politicians engage directly with people via social media without any intermediaries (e.g. social media strategist, manager). | *"The premise that concluded if we're active on social media means we're not actively working is the old school logical premise. Never heard of 'multitasking'?"* (National Politician)

"Because of this Facebook research, coming home from the States, I change the content of my social media. My sentence is more humorous and showing that I'm just like any ordinary people. I preach my activities, I answer questions, I clarify slanders, I said sorry if I'm wrong…" (National Politician-BBC interview)(BBC interview, 2018) | Legal constraint |

Table 6.4 Group of constraints and chosen strategy

In this thesis, I have argued that the concept of constraint in technology affordance theory is often understated. Technology constraint is when an actor can be held back from achieving goals when using a technology or a system (Majchrzak & Markus, 2012). Any factors that can prevent actors from achieving their goals when using social media are included as constraints in this study. The data show that constraints did influence the way in which politicians followed a particular strategy for using social media (see Paper 3). For instance, when politicians perceived *poor Internet connection, low ICT capability among constituents and limited capability* in using social media, they chose to have a minimal presence on social media. Thus, they actualized only internal affordances because of the impracticability of communicating with constituents (*nominal strategy*). Politicians also followed a nominal strategy when *customary norms* were seen as a constraint. This is evident in one of my case studies from a district parliament. Politician at this parliamentary level perceived that social media was not an effective communication tool for their constituents, who are respected religious leaders in the area. This is because of a strong customary norm of *sopan-santun,* where face-to-face meetings are the standard form of communication, not social media. They asserted that, when trying to gather opinion using ICTs, *customary norm* hinders them. Religious leaders or more elderly people in their constituency believe it is impolite to communicate with a respected leader using an intermediary such as social media. Thus, even though politicians perceive the social media

affordance of *opinion gathering*, they chose not to actualize this affordance because of customary norm constraints (Dini et al., 2018). This differs from the experience of politicians at the national and provincial levels of parliament, where they were able to actualize social media affordance of opinion gathering because of facilitating conditions such as Internet connection, IT capability, citizen characteristics, and the presence of a social media-based group and facilitating social norms. Customary norm can be categorized as a socio-cultural constraint. It is an indigenous characteristic of Indonesia that may also be an important driver of ICT application, which is exclusive in this context and likely elsewhere (Davison & Martinsons, 2016). In summary, contextual aspects do indeed determine how ICT is conceived in a particular setting (Sein & Harindranath, 2004).

When politicians were too overwhelmed to use social media for work-related business because of personal constraints, such as lack of time and capability, they chose an *instrumental strategy* and hired a social media manager (Dini & Wahid, 2017). This finding shows that, despite the perceived constraints, they were still able to actualize affordances, because facilitating conditions were present: namely the presence of social media manager and demand from constituents. A key factor in this strategy is that the content posted on social media is genuine and demonstrates constituents' political attitudes to politicians. Despite all the perceived constraints above, politicians still want to maintain a presence on social media because of the demand from constituents. In this situation, hiring a manager is one solution (Dini & Wahid, 2017).

Social media strategy preferences also revealed the facilitating conditions needed for actualization process. For example, in the case of *manipulative strategy*, the main drivers for politicians were informational and personal constraints combined with their political goals. When politicians perceived that social media content was unreliable, short-lived and easily manipulated, politicians chose a *manipulative strategy* by hiring a social media strategist. This gave them the opportunity to build public perception that fitted their agenda. In this case, informational constraints such as *unreliable content, short-lived information, minimum impact and fake accounts* are perceived constraints for actualization. Hiring a social media strategist meant that the actualization could still take place. Thus, the availability of a social media strategist, demand from constituents and good Internet infrastructure can all be classed as facilitating conditions. The data revealed that the main

objective of social media strategists is to manage social media content for politicians to create a positive image of them. Social media strategists also aim to make politicians look capable in their own field, or align with whatever kind of perception politicians want to create. Strategist also tend to manufacture provocative issues with the sole aim of boosting politicians' ratings on social media. With the help of cyber troops, strategists may be asked to carry out unusual, unique, and sometimes misleading manoeuvres that the public would never expect (Dini et al., 2016). This is done to approach youngsters on social media for instance, by playing Internet buzzer and using influencers to endorse politicians with manufactured comments made by the strategists, themselves.

Genuine strategy followers revealed that their social media capability, good Internet infrastructure (both in terms of the electoral base and in parliament), demand from constituents, supportive regulations, network effects and Internet security led them to manage their social media account by themselves. Although politicians in this group perceived legal constraints of social media use, they still proceeded to use this strategy because they were capable of producing proper content that did not conflict with problematic legislation. Genuine strategy is when politicians manage and engage directly with people via social media without any intermediaries (Dini & Wahid, 2017). Politicians in this group are 'tech-savvy' and under 50 years of age. When I asked a national politician with more than 10 million followers on Instagram and a genuine strategy follower about his strategy, he argued:

"Is there a way today we can reach many people except with a smartphone? With social media of course. If you go to TV it might be expensive, to the radio it might take time. I came to the Facebook office in the States. Facebook says this, "Sir, the Indonesian people, the engagement of your people is low if the content is serious. If you want a high engagement, you convey your message in ways that are not too serious." Because of this Facebook research, coming home from the States, I change the content of my social media. My sentence is more humorous and showing that I'm just like any ordinary people. I preach my activities, I answer questions, I clarify slanders, I said sorry if I'm wrong, I'm just a human, right ..." (BBC interview, 2018)

Furthermore, politicians in all strategy groups acknowledged that unsupportive legislation acted as a social media constraint. Most of them changed their goals as a consequence or appropriated constraint by finding a workaround (P. Leonardi, 2011). In Indonesia, social

media use for eParticipation is still in its infancy. In the midst of its early development, certain obstacles have arisen as a result of unsupportive legislation, including a cyber defamation clause that restricts freedom of speech and expression on online media (see Paper 5). Many politicians were dragged into a legal case by their fellow politicians with regard to their social media posts, which were said to contain defamatory content that actually had political motives (see Paper 5). In total, there have been at least 128 cases since the enactment of this legislation, with half of them involving politicians. These cases were brought to trial within the framework of the Information and Electronic Transaction (IET) law on cyber defamation. Such cases have made some politicians feel reluctant to use social media. Their perception that legislation is problematic and unsupportive has led to constraints in actualizing external affordances. This perception of social media is most evident for the nominal strategy group. Politicians who adopt the nominal strategy only perceive the external affordance of value sharing. As a result of this constraint, this affordance has only been able to be actualized when a social media manager or strategist has been hired (i.e., *instrumental* and *manipulative* strategies). In this case, the social media manager or strategist act as a facilitating condition for the situation.

In summary, one can argue that politicians' choice of strategy acts as a coping mechanism or workaround for perceived social media constraints. Despite all the perceived constraints, they are still able to actualize social media affordances because of the presence of facilitating conditions. As shown in this study, constraints can also be manifested as potential stumbling blocks that an actor may encounter when using a particular piece of technology (Majchrzak & Markus, 2012). Identification of social media constraints could inform eParticipation stakeholders in their understanding of the enabling factors as well as those that hinder social media use. In turn, this could potentially lead to the development of sustainable eParticipation design and solutions. As discussed above, identification of social media constraints an also shed some light on our understanding of politicians' choice of social media strategy by appropriating the identified constraints or changing the goals (P. Leonardi, 2011).

Facilitating Conditions for Affordance Actualization

Identifying constraints is one way to understand the conditions needed for actualization. These constraints can then be translated into facilitating conditions. Constraints can also be identified from the field data. For instance, if one identifies poor Internet infrastructure as a social media constraint, then the opposite of this, and a facilitating condition, is good internet Infrastructure. This was confirmed in the interviews carried out with the politicians when they were asked why they chose to follow one of the social media strategies discussed in the previous section. For instance, politicians who have minimal social media presence for eParticipation answered that in their constituency the Internet infrastructure is poor and there is no demand from their constituents. They went on to argue that they would have used social media if the Internet infrastructure was good and if there had been a demand for social media from their constituents.

Perceived affordances cannot have an effect unless they have are actualized and for actualization to occur, facilitating conditions must exist (E. Bernhard et al., 2013; Thapa & Sein, 2018). In this thesis, interviews with politicians highlighted the facilitating conditions for internal and external affordances, as well as the constraints, in planning social media strategies. Politicians also talked about the conditions they needed for them to use social media. In this study, facilitating conditions were identified as: *good Internet infrastructure, cheap and easy access, actors with IT capabilities, social media manager/strategist, demand from constituents, involvement of other actors, supportive regulations, and network effect.* Table 6.5 below summarizes identified internal and external affordances along with facilitating conditions drawn from the data.

Internal affordance	Facilitating condition
Brainstorming	Network effect
Information storing	Capability of actor
Information sharing	Good Internet Infrastructure
Peer entertaining	
Invitation of events	
External affordance	
Value sharing	Good Internet infrastructure
Opinion gathering	Cheap and easy access
Political networking	Supportive regulation
	Capability of actor
Personal branding	Presence of social media manager

Maintaining political presence	Demand from constituent Involvement of secondary actor
Promoting participation	

Table 6.5 Identified affordances and their facilitating conditions

As shown in Table 6.5, facilitating conditions differ in several respects between internal and external affordances. In terms of internal affordances, good Internet infrastructure, network effect and IT capability of actors are essential conditions for all identified affordances to occur. Network effect is the reason why most politicians at all levels of parliaments use social media (i.e., for information sharing and invitations to events). For example, all politicians at a national level conveyed that the main reason they use WhatsApp is because they do not want to miss out on the latest circulated information within the commission and parliament. Even those politicians who do not have the capability and skills to use social media are willing to hire a social media manager so that they can join a WhatsApp group account. A politician from national parliament argued:

"I actually don't really use social media except for WhatsApp. I use it because all my colleague at commission one use it for main channel of communication. They update all information, invitation, newest issue and also responses to hot news through WhatsApp group and therefore, even though I'm busy and not really expert in using smartphone, I told my secretary to always update me on what's going on in the group, he is like my right-hand man."

In another setting, a politician from provincial parliament asserted:

"I honestly do not use the blog profile provided by the official website of my parliament for my work. Nobody uses that, my friends here (at the parliament) do not use that facility, because I think it is too time consuming and unfamiliar unlike Facebook or Twitter."

In the same vein, other politicians at the district parliament agreed with the above statement, saying that they only use familiar social media such as Facebook, Twitter and WhatsApp because the majority of their colleagues also use these forms of social media. A competitive environment for social media use is really salient at national parliament level, as noted by one of the interviewees:

"I know some colleagues who do not join our WhatsApp group, they are usually not updated with the latest information and news and it takes sometimes for them to catch up any updates from our commission during the meeting. I was one of them and then I realized I need to have WhatsApp on my phone so yeah hahaha…"

The above examples have given rise to conjecture about the importance of *network effect* as a main driver in social media use by politicians. The interviewees clearly stated that the reason they use particular social media is because their fellow politicians use it, too. When making a particular choice, one consideration is inevitably how someone's participation will affect others and how the participation of others will affect us. This is termed network externality or network effect (Liebowitz & Margolis, 1994; Shapiro, Carl, & Varian, 1998). When a network effect is present, the network value of a service or product increases according to the number of users using it: 'the more the merrier' concept (Shapiro et al., 1998). According to the data, more politicians used social media the more the affordances of social media were actualized. For example, if most politicians from the same group use WhatsApp as a channel for inviting members to an event, other politicians from within the group will be most likely to use WhatsApp for the same purpose. The presence of network effect of social media use by politicians is, therefore, an essential facilitating condition for all identified internal affordances, including brainstorming, information storing, information sharing, peer entertaining and invitations to event.

In terms of external affordances, *demand from constituents* is pivotal for actualization. In actualizing external affordances, the data show that politicians do not care whether their fellow colleagues are on social media or not because their main consideration is how to have an online presence as an accountable representative. Therefore, if they were standing again at the next election, they would have an online base for their campaign. What politicians care about when actualizing external affordances is how people see and assess their presence online. Consequently, demand from constituents can be seen as the main driver for the actualization of external affordances.

As well as demand from constituents, the *involvement of secondary actors* can be included as a facilitating condition in which a new affordance emerges – value sharing. In the case study of national politicians, value sharing only emerged after the readers of a politician's blog interacted with that politician. Without the involvement of secondary actors in the

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actualization process, the politician would not have actualized value sharing mindfully (i.e., fully aware and with careful consideration). Thus, involvement of secondary actors is a notable facilitating condition in the mindful actualization of affordance. Thus, it is discussed in detail in section 6.1.3.

In this study, interviewed politicians tended to play safe in sharing values, criticism, and comments through social media. As discussed in the previous section, unsupportive regulation can be perceived as a social media constraint, and supportive legislation can be seen as a facilitating condition. Findings from Paper 5 have suggested legal, social and technical solutions to address the dark side of social media use within eParticipation in Indonesia. From a legal perspective, an amendment to the IET law is necessary to restore a cohesive environment for eParticipation in Indonesia. In late 2016, the problematic clause on cyber defamation was amended and passed by national parliament. The main changes include a change in the maximum prison sentence from 6 to 4 years maximum and new restrictions which mean that people cannot be held in detention during the investigation process. It should also been noted that cyber defamation is a complaint-based offence, in alignment with the Criminal Code. Accordingly, supportive regulation and particularly value-sharing are necessary conditions for external affordances to be actualized.

In summary, good Internet infrastructure, cheap and easy access, IT capability of actors and supportive legislations can all be identified as facilitating conditions for the actualization of external affordances. One national politician acknowledged that in her electoral base, social media is not used to communicate with her constituency because the Internet infrastructure is inadequate. A lack of Internet infrastructure is, therefore, seen as the main reason why social media has not been her choice of communication media with her constituents. A district parliament politician also admitted that inadequate Internet infrastructure is the main reason why he and his constituents never use social media as a communication method. He went on to state:

"For internal communication within the commission we use WhatsApp, but for the public we use direct public hearing. Based on the data from our staff, social media coverage in Gunung Kidul is really low only around 10% of the total population here due to uneven Internet coverage."

Indeed, all interviewed politicians and other eParticipation stakeholders interviewed in this study mentioned the importance of adequate Internet infrastructure. Good Internet infrastructure can, therefore, be identified as the main facilitating condition for social media use in eParticipation. Without this facilitating condition, politicians may only perceive affordance and the probability to actualize affordance is almost zero. This finding affirmed the argument that affordance emergence and actualization are interrelated processes from mutually influencing roles of goal-oriented actors and facilitating conditions in the actualization process (Thapa & Sein, 2018).

6.1.3 Summary of Practical Contributions

This chapter presents a summary of practical implications relating to the implementation of social media use within eParticipation. Table 6.6 below categorizes the practical implications of this doctoral thesis into three dimensions, according to the area addressed.

Dimension	Description
Managerial	Offers a set of social media affordances classified into internal and external affordances, identification of constraints and facilitating conditions, a set of social media implementation strategies for politicians and lesson learned from custom-made social media for eParticipation.
Policy	Offers a set of solutions to policymakers to respond to identified legal and regulatory challenges of social media use in eParticipation.
Socio-cultural	Makes explicit a particular constraint of social media adoption in eParticipation in the Indonesian context. Policymakers must consider the context when designing eParticipation initiatives.

Table 6.6 Summary of the implication for practice

Managerial dimension. First, the identification of internal and external affordances by politicians could help future policymakers design an effective social media strategy for eParticipation that could yield a tangible effect. For instance, policymakers could design a social media-based initiative by considering identified internal and external affordances that suit their design plan. Affordances that are seen to be more important than others can be prioritized and maximized through social media features that suit the context where the initiative is applied. In this case, LAPOR! is a good example (see Paper 4). This custom-

made social media service for public reporting had many features but some of them, including a poll feature, were not very effective in yielding citizen engagement (Dini et al., 2018). In this case, it was found to be necessary to carry out an evaluation on a regular basis, so as to enhance features that afford more important affordance to users than others. LAPOR!'s management took this suggestion seriously by simplifying the website and deleting poll features that did not work. LAPOR! only focuses on offering a public service for citizens to communicate with government institutions. Its website interface is also much easier, simpler and friendlier to use (lapor.go.id). This is in accordance with previous research which suggests that eParticipation applications with high levels of functionality are expected to enable citizens to conveniently interact with public officials, consult on government decisions, participate in online consultations or discussions about policy issues, and so forth (Yueping Zheng, 2017). Effective and targeted communication through social media is pivotal to building citizens' trust towards eParticipation services (Shah & Lim, 2011).

Furthermore, if policymakers plan to create an initiative in an area where their constituents are not exposed to social media or where the area has a strong cultural norm that could constrain ICT use, it is best to design an initiative that fits in with such constraints. For instance, as suggested by social media strategists in their interviews, to gain more participation in these areas, policymakers should be more proactive and emphasize offline strategies more than online ones (e.g. direct public hearings, work visits, and direct socialization of a particular public issue), whilst at the same time trying to socialize online initiatives little by little and avoiding any feeling of imposition. Likewise, to enhance engagement, policymakers have been encouraged to go where citizens are, rather than expect them to move from offline to social media (Alarabiat et al., 2016; Karantzeni & G. Gouscos, 2013). Thus, it is essential to understand the context when designing an effective eParticipation initiative if it is to have a greater chance of yielding an expected impact.

Second, eParticipation stakeholders, particularly politicians and government, must foster facilitating conditions when they want to enact a social media-based eParticipation initiative. This study argued the importance of strengthening the existing facilitating conditions and improving areas that have not yet been empowered. One study has shown that performance expectations, facilitating conditions and empowerment were significant

influences on the intention to use an eParticipation tool (Naranjo-Zolotov et al., 2019). This study identified the following facilitating conditions: *good Internet infrastructure, cheap and easy access of Internet, network effect, supportive regulation, capability of actors, presence of a social media manager, demand from constituents,* and *involvement of other actors.* Taking facilitating conditions into account in an implementation plan for an eParticipation initiative could initiate materialization of social media affordance. One suggestion, for example, would be to adjust regulations on online activities so as to encourage potential users to express political opinion on social media before developing future eParticipation planning. *Supportive legislation* could encourage citizens participation in government policymaking (Dini, 2017; Tucker et al., 2017). Furthermore, attaching eParticipation initiatives to prominent social media platforms with an established user base is more favorable than creating a custom-made social media service when affordance is already available. An established user base is important to amplify *network effect* as a facilitating condition for successful eParticipation via social media. It is more effective than building a custom social media with a specific feature but no user base. Likewise, to further develop social media as an eParticipation tool, the data suggests that integrating an eParticipation initiative through social media using an existing engagement strategy would yield a greater outcome (Kopackova & Libalova, 2019; Pflughoeft & Schneider, 2019).

Third, the involvement of secondary actors is a pivotal facilitating condition for the emergence of new affordances in mindful actualization. They can inform a social media manager or strategist about the importance of the mindful actualization of social media affordances by politicians and result in a more integrated outcome evaluation (Volkoff & Strong, 2017). Mindfulness in actualization is important for the achievement of expected outcomes for social media within eParticipation. Consequently, eParticipation actors should evaluate social media use on a regular and consistent basis (i.e., monthly or annual evaluations), so as to assess any dynamicity related to rapidly changing technology (Kneuer, 2016). Interviews with social media strategists revealed that regular evaluation reveals unexpected outcomes from social media use by eParticipation actors and allows online media teams to change the strategy accordingly. The evaluation should be carried out by considering feedback from constituents to: (1) understand which strategies could be best practice for politicians as well as other eParticipation actors and (2) re-evaluate social

media use to see which goals are achieved and which are not. Previous research has suggested a strategy to adopt social media use in the government agencies that includes evaluation. The performance measurement indicators specified include first measuring public reaction and then the success and feasibility of activities undertaken by social media services (Adrees et al., 2019). The implementation of regular evaluations of online participation plans is one way to further develop social media tools for eParticipation and eventually formulate best practice (Pflughoeft & Schneider, 2019).

Fourth, the identification of constraints from social media use by politicians can help Indonesian government to improve any shortcomings by providing solutions. For instance, as one politician at a national level argued, it is crucial to prioritize the improvement of the Internet infrastructure in remote areas of Indonesia before developing any social media-based eParticipation initiatives on a national scale. Indeed access is a fundamental part of eParticipation, both in terms of access to the Internet and to eParticipation through use of social media (Bright & Margetts, 2016; De Blasio & Selva, 2016).

Fifth, by considering social media constraints, social media strategists are able to advise politicians on choosing the correct strategy for producing social media content that hooks the readers and increases engagement. This thesis provides a set of strategies (genuine, instrumental, manipulative or nominal) for social media use for eParticipation stakeholders, especially for politicians at an individual level (Dini & Wahid, 2017). These strategies can be selected and combined according to the context and goals of politicians. *Nominal, instrumental, manipulative and genuine* are among identified social media strategies employed by Indonesian politicians. Setting up which strategy for which political period is important determinant in choosing or combining social media strategy as the data revealed politicians changed strategy depending on the timeline such as before, during and after the general election (Dini & Wahid, 2017). These strategies can be used and adjusted by politicians in neighboring or other countries with similar context to Indonesia. For instance, mapping constraints of the context where the strategy is applied is equally important as understanding the character of constituent (Dini et al., 2018; Pflughoeft & Schneider, 2019). For instance, it would make sense to use *nominal strategy* if politicians came from electoral base with low Internet penetration and ICT literacy.

Policy dimension. As discussed previously, in Indonesia, social media has a legal constraint whereby the legislation on cyber defamation does not fully support freedom of expression and speech, both of which are core functions of social media use for eParticipation. This thesis has revealed that the current regulation on social media use needs to be more accommodating with regard to freedom of expression and speech when using social media. I have argued that the IET law should not be used to oppressed freedom of expression for citizens who participate in political participation using online media. Indeed, it has been suggested that the penalty for cyber defamation should so strict that the right to seek, receive, and share information via social media is performed in fear (Dini, 2017). It can also be argued that cyber defamation law should never be used to prevent criticism towards government. In the first instance, then, the law needs to be reviewed and public legal education need to be done. Most importantly, law enforcement agencies in Indonesia need to assess, in advance, whether there are elements of an imbalance in power relations in the reports of cases relating to the IET Law, and to make that information part of their legal considerations when decisions are made. Second, it has been suggested that cyber defamation should sit under civil law jurisdiction; if this was the case, an Online Dispute Resolution (ODR) could be considered a more effective way to settle a cyber defamation dispute (see Paper 5). An ODR is designated for cases under civil law that seek restitution, compensation and restoration of honour and reputation. As such, it has the potential to be applied to social media defamation cases (Dini, 2017). ODR development in Indonesia would create opportunities for participation where it "encourages collaboration between the legal and computer sciences including the information system communities (Katsh et al. 2001 p. 106)."

In addition, the findings of this study demonstrate that it is necessary for the Indonesian government to make more effort in safeguarding the social media environment by strengthening its regulations on privacy and data protection. Currently, Indonesia does not have a comprehensive privacy and data protection regulation framework, placing it in a weak position in terms of online data protection. It is therefore important for Indonesian government to speed up the process of passing bills on privacy and data protection, because using social media that involves the transfer of data in other jurisdictions could cause problems in the future (Rosadi, 2018).

Finally, eParticipation through the use of social media must be supported with good technology infrastructure. This study has shown that good Internet infrastructure as a facilitating condition and, indeed, the main driving force for the actualization of the internal and external affordances identified earlier in this thesis. Consequently, the government of Indonesia must prioritize the development and improvement of Internet infrastructure throughout the country if eParticipation is to work effectively and sustainably. Such developments should not just be concentrated in large cities but also in areas where there is low Internet exposure. In addition, issues relating to Internet security are technological constraints that can be overcome with the application of Bright Internet principles, such as *traceable anonymity, rule-based digital search warrants and privacy protection* (see Paper 4) (Dini, 2017; J. K. Lee, 2015).

Socio-cultural dimension. The strong customary norm known as *sopan-santun* has been identified as a context-specific constraint in social media use for eParticipation in Indonesia (Dini et. al, 2018). The findings of this study revealed that, in several areas in Indonesia, it is considered impolite to communicate using social media with respected leaders. Communicating using ICT as an intermediary is a common practice in large cities but not in more rural areas in Indonesia. This customary norm is embedded strongly in society, even extending to the application of ICT as a means of communication. Thus, this particular norm is an indigenous characteristic in Indonesia that may also be an important driver of ICT application or non-application. Although it may be exclusive to this context, it is likely that it can be found elsewhere (Davison & Martinsons, 2016). Contextual aspects do indeed determine how ICT is conceived in a particular setting (Sein & Harindranath, 2004). As such, eParticipation actors are expected to understand the particular context in which they operate if they want to design a social media initiative that works within their community. Lastly, lessons learned from the application of custom-made social media in Indonesia may also be useful to similar custom-made social media initiatives developed by a government in a similar context. All the above-mentioned practical contributions may be adopted and considered by eParticipation actors in similar contexts, particular in countries where technological, informational, personal, legal and socio-cultural constraints are similar to those identified in this thesis.

6.2 Theoretical Contribution

This thesis offers a conceptualization of the mindful actualization of new affordances outlined in the framework of the feedback loop affordance actualization process as a main theoretical contribution. A detailed examination is presented below.

Mindful Actualization of New Affordances

The data show that a change in perception by the main actor that occurs after a completed original affordance actualization can lead to the emergence of new affordances. Here, new affordances can be described as any additional affordances that were once hidden or latent can only emerge after the actualization of the main affordance. From the main actor's point of view, they are "new". Sometimes, however, new affordances emerge from the unintentional actualization process, without the main actor being aware. This could be seen as a double-edged sword, because if an actor unintentionally actualized new affordances, the result would be unexpected and could have either a positive or negative effect. As shown in Figure 6.1, the unintentional actualization of social media affordance involves secondary actors who later influence a perception change by the main actor through additional external affordance information. The unintentional actualization of new affordances is revealed from an excerpt from an interview with a national politician who at first only used social media to archive her activities (*information storing* affordance). After some time, she began to realize her archiving activity on social media could also be useful for sharing value on some national issues (*value sharing* affordance). The perception change was influenced by feedback from a secondary actor, which translated the unintentional actualization into a mindful one.

"...In my constituency we don't talk about Internet, mobile signal issue discussion is more relevant. Too many blank spots in my constituency so I realized I did not use social media for my campaign. But now after elected I created a personal web-blog for archiving my activities includes my thoughts on some national issues like when I went to the constituency to have a dialogue with people, public hearing and also work visit during recess. I did that to make a report to my commission later on as we are responsible to make a report for a plenary meeting. Indeed, it seems that the traffic on the website, especially downloaded from my constituency North Maluku, is very small. However, after sometimes blogging for my personal use I discovered that the highest traffic is from Jakarta the capital. I'm also surprised though, that the traffic of my weblog is unusually high where I did not expect any replies from people. My constituents engaged with me indirectly through the comment

section on my weblog. Some of them giving me support, some of them trying to extend the discussion by making constructive comment. In addition, usually journalist friends checked what activities are there to make news. Because indeed the issues that I brought were the issues in commission one. Some of them reached out to my staff and ask this week or next week's schedule, they also told me and my staff that they follow the latest news on my website and that is a boost for me to write content. So, it is useful for them too and I'm glad. From there I know that what I have been writing on my weblog is actually benefitting them and honestly it makes me feel more eager to write useful content and share my viewpoint as a politician so it is easier for them to make news from my post"

From this excerpt, the actualization of *information storing* (original affordance) on a web blog has changed this politician's perception of using social media through the involvement of secondary actors (readers of her blog) and created a discovery of a new affordance of *value sharing*. Without the presence of secondary actors, the politician (main actor) would not have known that her action of blogging, which she undertook for personal benefit, had an impact on her constituents as a value sharing media. In this case, the unintentional actualization of *value sharing* occurred sequentially after the actualization of *information storing* was completed. Whilst unintentional at first, because *value sharing* affordance had not been the main goal of using a web blog, after interaction with her blog readers (journalists and constituents) it became a mindful actualization. In this case, the involvement of other actors made a new affordance information available through their interaction with the politician. With this new affordance information, the politician gained a new perspective on how she used her web blog, not only for information storing but also for value-sharing purposes. With mindful actualization, the politician could then go on to structure blog content so that it corresponded more closely with the politician's goals and could achieve any intended results.

Thus, in this case, the presence of a secondary actor or actors can be considered as a facilitating condition for the mindful actualization of a new affordance. In addition, the emergence of a secondary actor or actors has shown how the process of unintentional actualization can lead to a new affordance by the main actor. This finding is in accordance with the argument that the actualization of an affordance may lead to the emergence of a new affordance (Pozzi et al., 2014; Thapa & Sein, 2018). A second example, shown below, is from an interview with a social media strategist employed by a national politicians

"Bapak X (mentioning the name of the politician whose social media are managed by an administrator team) sometimes posted humorous comment casually in his friend's social media post to maintain contact with his friends. This kind of posts are hard to control (by our team) so sometimes it is posted by Bapak without our knowledge. This kind of post is a two-edged sword, if the joke is good and appropriate, it could gain engagement from his constituents who happened to read that post in social media feed. However, sometimes the jokes are inappropriate due to a bad timing for instance when political conjuncture present. The joke could be deemed inappropriate by the constituents and that created unfavorable personal imaging of Bapak as a politician. Furthermore, some followers reached Bapak directly through personal message and some of them Retweeted the joke and commented with negative reactions. If that's the case, Bapak would summon us to have a meeting discussing damage control strategy."

This example shows how, chronologically, the actualization of an affordance led the main actor to gain a new perception of affordance, influenced by another actor or actors. In the first example, the new politician's perception was coupled with a willingness to change their behavior, and this led to the emergence of a new affordance. The new affordance of *value-sharing w*as, at first, unintentional, but later was actualized mindfully when the main actor was aware about *value-sharing* from the additional affordance information from secondary actors. In the second example, *peer-entertaining* was actualized first before *maintaining political presence* was unintentionally actualized. At first, the politician only intended to post a joke to entertain his friend; however, later he realized that his post had have an unfavorable effect on his personal image. Regardless of the disadvantageous impact on his personal image, the unintentional actualized affordance led to an engagement with his constituents on social media and, therefore, his political presence could be perceived by them. Without constituents acting as followers (secondary actors) and reaching out to the politician, the politician (main actor) would not have known that his action of posting jokes for a personal reason had an impact on his constituents as a *maintaining political presence* affordance. In this case, the unintentional actualization of maintaining political presence occurred sequentially, after the actualization of peer entertaining had been completed. The politician's awareness could contribute to better planning of social media content, which in turn could change an unintentional actualization into a mindful actualization and yield the desired outcomes.

These examples indicate a strong dependency network of affordances, where the actualization of a new affordance requires the original affordance to be actualized first (Strong et al., 2014). The process of social media affordance actualization involved secondary actors, who completed the cycle in an actualization process and formed a feedback loop. If we examine the model on the affordance actualization process (see Figure 2.2), the process of actualization stopped at effect, and did not take into account what emerged after the process of actualization had been completed. However, the involvement of secondary actors, who create awareness of a new affordance by providing feedback through interaction with the main actor, allows the process model to form a feedback loop. This feedback loop explains the actualization of a new affordance. Figure 6.1 below explains the process of actualization of a new social media affordance from the first case study. Here, the feedback loop is specific to the case of actualization of a *value-sharing* affordance.
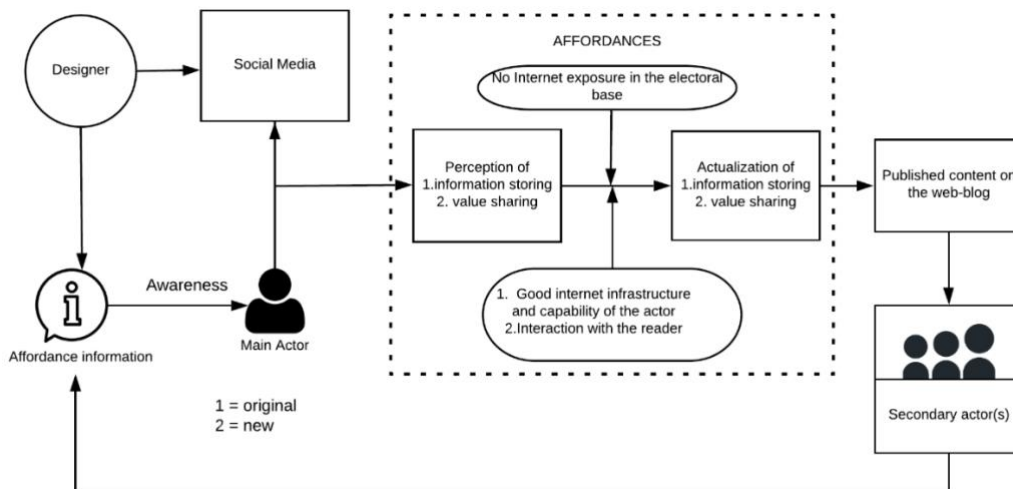

Figure 6.1 Emergence of a new affordance in the feedback loop actualization process

As discussed previously, the original intended affordance, *information storing,* related only to low Internet exposure in the politician's constituency. However, during the actualization process the readers of the politician's blog informed her that they benefitted from her posts. Such feedback can be seen to add value to affordance information, influencing the politician's perception of this social media affordance. She was only made aware that *value*

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sharing had been actualized after the actualization of information-storing had taken place. She then realized that she could use her web blog as a means of *value sharing* whilst continuing to use it for *information storing*. She admitted that this awareness has made her more careful in preparing her blog content with her team in order to meet her new goal of creating an online base for her constituents. She also included other useful information, as per her blog readers' requests. Indeed, the blog now (as of 2019) has a dedicated contact feature (replacing the comment feature below each of her posts) and an opinion feature. This blog has developed from being a place to store information on her political activities into a personal website to which she has added dedicated interaction features such as a contact form and opinion feature. The politician's personal website is now linked to her other social media so that her constituents can subscribe and connect with her online. In this sense, two affordance elements emerged from the feedback loop actualization process: first, a new perception from the added affordance information by the secondary actors (from only *information storing* to *value sharing*), which led to a second element, a mindful actualization of a new affordance that was unintentionally actualized.

In terms of a temporal view of affordances, many researchers have suggested that affordances can first be perceived and then actualized (E. Bernhard et al., 2013; Pozzi et al., 2014). Interestingly, the cases above have shown that an affordance does not need to be perceived to be actualized; it can, somehow, be perceived after its actualization, and become a mindful actualization. This view supports the reverse perception of affordance, where a new affordance can be perceived after the actualization of the preceding affordance. This demonstrates that, in practice, affordances can be actualized unintentionally (Thapa & Sein, 2018; Volkoff & Strong, 2017; Yingqin Zheng & Yu, 2016). Earlier research has only explained a process and conditions through which affordances are perceived, leading to actualization that is termed a Trajectory of Affordances. Such research has not yet acknowledged the involvement of other actors who have perceived the new affordance and contributed to the emergence of a new affordance (Thapa & Sein, 2018). This thesis fills this research gap by introducing the involvement of a secondary actor or actors, who change the affordance perception of the main actor through feedback, so that the main actor gains awareness. This additional external affordance information comes after the actualization of original affordance has been completed. The involvement of such secondary actors functions as a facilitating condition

for a mindful new affordance actualization after the original affordance is actualized. It also helps to explain the process whereby the unintentional actualization of a new affordance can turn into mindful actualization. In this way, the concept of a feedback loop explains the actualization process and the development of new or original affordances. The emergence of new affordances is influenced by a change in perception by the main actor following feedback from secondary actors who give additional affordance information (see Figure 6.1). This concept is one of the contributions made by this thesis to the current discourse on the conceptualization and actualization of affordances from a TACT perspective. Mindful actualization makes the users of technology more effective because it helps to prevent them producing unexpected outcomes (Volkoff & Strong, 2017). Figure 6.2 below is a proposed model which is more general. It develops the affordance actualization concepts shown in the previous figure.
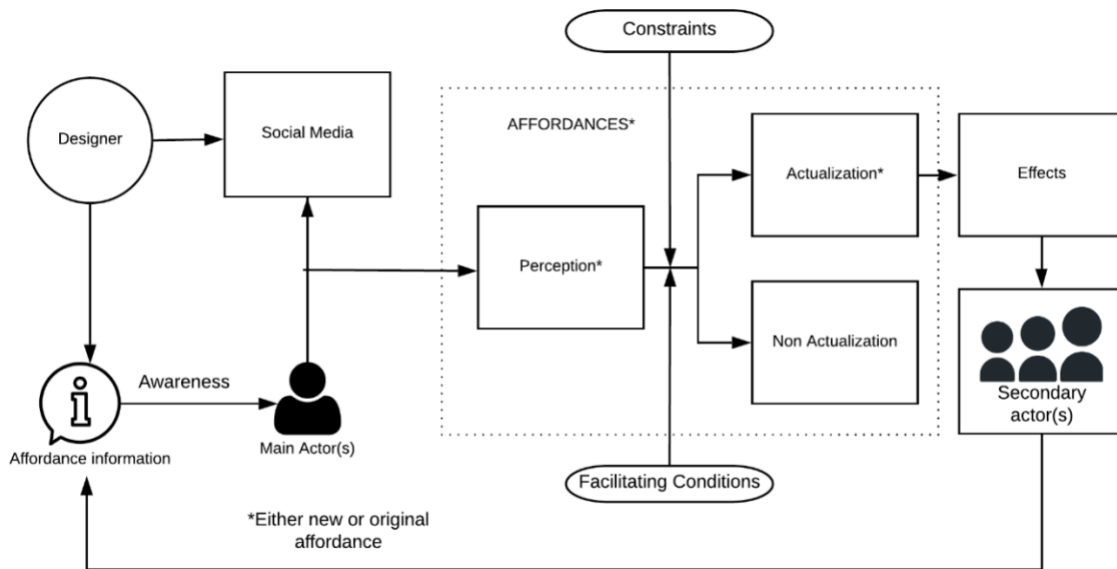
Figure 6.2 Feedback loop affordance actualization process

Social media have some predesigned affordances that are built in by the designer and are manifested as social media technologies. The potential user of social media, in this case a politician, receives information about the existence of a particular technology affordance from affordance information. Affordance information includes symbolic expressions, and technology configuration and features. External information, such as Standard Operating Procedures (SOP) and feedback from other actors, influences politicians' affordance

perceptions. However, based on our empirical observations, not all social media users perceived the information correctly; indeed, some even misperceived it because of their different capabilities, goals and socio-cultural contexts. When unintentional actualization turned into mindful actualization, some politicians even re-perceived external affordance information. In turn, when secondary actors became involved in the process, this influenced their perception of social media affordances. The data revealed that sometimes politicians used social media 'out of the box' if they thought there goal could be achieved through various social media strategies. When social media interacts with politicians, as is the case in eParticipation, they both affect, and are affected, by the perception of affordances. Nonetheless, affordance perception does not take effect until it is actualized. Affordance information influences affordance perception, whereas constraints and facilitating conditions influence politicians in deciding whether to actualize social media affordances or to stop at perception only. In the model, constraints are not always embedded within the artefact (social media); they can come from an external aspect of the technology (e.g. the capabilities of the actors, and socio-cultural, historical and legal constraints).

This study conceptualizes that constraints and facilitating conditions are also dependent on an actor's capabilities and the context within which the affordance perception is formed. In this case, social media constraints will be dependent on the capabilities, skills and goals of politicians, as well as the socio-cultural context within which it is used and any legal frameworks that govern social media communication in that area. Politicians' perceptions of constraints and facilitating conditions will result in either actualization taking place or not depending on the degree of effort invested by the actor in the actualization process, itself (E. Bernhard et al., 2013; E. C. Bernhard, 2015). The actualization will later result in immediate concrete outcomes that may have either a positive or negative effect on eParticipation.

Furthermore, the actualization of an affordance sometimes produces additional new affordances, which can be actualized either mindfully or unintentionally. The emergence of a new unintended affordance is called as unintentional actualization of affordance (Thapa & Sein, 2018; Volkoff & Strong, 2017). Mindful actualization, on the other hand, is where the actor is aware of affordance perception from the start of the actualization process and then mindfully actualize it to achieve goals. Mindful actualization is important

because it enables actors to use technology effectively and, therefore, prevents any unexpected outcomes from the actualization process, itself. Thus, awareness of the main actor is integral in the process of actualization (Volkoff & Strong, 2017). Empirical findings have shown that affordances do not necessarily need to be perceived first to be actualized. This proves that sometimes affordances emerge in practice from the actualization of previous affordances (Thapa & Sein, 2018; Volkoff & Strong, 2017; Yingqin Zheng & Yu, 2016). The involvement of secondary actors as a facilitating condition is enough to conceptualize the process of a mindful actualization from the unintentional actualization of a new social media affordance. The emergence of secondary actors makes the main actor aware of a new perspective about their use of social media: that the way they use social media is not only useful for them but also has an effect on their constituents. The main actor's change of perception is the condition needed for a new affordance actualization; thus, the main actor is able to actualize a new affordance mindfully with expected outcomes in mind. This finding adds value to existing discourse on the affordance actualization process in IS. It does so by acknowledging the contribution made by secondary actors to the main actor's awareness in the affordance actualization process. The existence of secondary actors may possibly explain the missing link between affordance perception and actualization process, as shown in Figure 6.2 (E. Bernhard et al., 2013, 2014; Strong et al., 2014; Thapa & Sein, 2018; Volkoff & Strong, 2013).

Findings from this study support the view that affordance perception can emerge before and/or after the actualization of affordance (as seen in Figure 6.2). There is also the possibility that secondary actors may be involved in the affordance actualization process, making a connection with the main actor which results in the mindful actualization of additional new affordances. Furthermore, the perception and actualization process are interconnected. The involvement of secondary actors can, therefore, explain why the unintentional actualization of affordances occurs in the process. It is important to study the factors that contribute to the process of actualization, such as affordances, constraints and facilitating conditions, because they give us an insight into the stakeholders in eParticipation, particularly politicians and the social media strategists who help them to plan best practice in social media use for eParticipation purposes.

7. Conclusion

This chapter offers a summary of the findings of this thesis, highlights its limitations and goes on to propose possible avenues for future research.

7.1 Summary

In this section I will revisit the research questions to discuss how the papers that make up this thesis contributed to addressing them. I will then give a brief answer for each question and elaborate further in the section that follows. The research questions addressed by this thesis are:

RQ 1: How do politicians use social media for eParticipation purposes?

RQ 2: What are the constraints of social media use within eParticipation?

RQ 3: What are the conditions needed for social media affordance actualization to take place?

Firstly, with regards to RQ1, the data identify that politicians use social media in different ways depending on their perception of social media use in the workplace and their goals. Social media for eParticipation can be categorized into two categories: internal and external affordances (Dini et al., 2016). In this thesis, I generated a concept of internal and external affordances for politicians' use of social media at three levels of parliament. Internal affordances explain the politicians' use of social media to communicate with fellow politicians in their organization. External affordances occur when their constituents become involved in social media and can play an influencing role. External affordances explain the use of social media for eParticipation by both politicians and citizens. Identified internal affordances include *brainstorming, information storing, information sharing, peer entertaining, and invitations to events.* Identified external affordances include *value sharing, opinion gathering, political networking, personal branding, maintaining political presence, and promoting participation.* The classification of internal and external affordances makes explicit the role of social media for politicians in eParticipation. First, it acts as a tool of communication between politicians internally, which in turn influences politicians' behavior when communicating externally with citizens. Second, it acts as a

communication tool to interact with citizens in a way that aligns with eParticipation goals, such as to improve the democratic decision-making process, and to encourage inclusion, transparency and participatory outcomes.

At a national and provincial parliamentary level, both internal and external affordances were actualized and created effects. At the district level of parliament, the politicians exercised only internal affordances as a way of communicating with fellow politicians. They did not communicate with their constituents because of perceived constraints and, therefore, any effects created by eParticipation were indirect. The main reason for this was a particular customary norm known as *sopan santun*, which was identified as a social media constraint and which was strongly adhered to by constituents at the district parliament level. This customary norm informally restricts communication with elders and leaders of the tribe to face-to-face meetings and restricts communication via such intermediaries as social media. In this study, I mapped the relationship between internal and external affordances . Evidently, some internal affordances influence the successful actualization of external affordances.

With regard to the second research question, the previously published papers that make up this study have identified social media challenges that manifest themselves as constraints from the perspective of politicians. This study identified the following constraints: *poor Internet connection, limited capability, unreliable information, distraction of focus, low ICT literacy among constituents, customary norms, security issues, personal attacks, fake accounts, short-lived information, minimum impact, and unsupportive legislation.* Identified constraints were then grouped into: (a) technological constraints, such as poor Internet connection, and security issues; (b) informational constraints, including unreliable content, short-lived information, fake accounts, and minimum impact; (c) personal constraints, which include distraction of focus, limited capability and low ICT literacy among constituents; (d) legal constraints, which include personal attacks and unsupportive legislation; and lastly (e) socio-cultural constraints, such as customary norms. The constraints identified by this study have an influence on politicians' choice of social media strategy, which can be nominal, instrumental, manipulative or genuine in nature. Politicians' choice of social media strategy is a method for coping with their perceptions of social media constraints within eParticipation. In addition, the identification of

constraints enables the examination of the facilitating conditions needed for affordance actualization to occur, because constraints can be turned into facilitating conditions if several conditions are met.

After identifying social media affordances and constraints, and then identified constraints, I was able to identify the conditions needed for actualization to occur. In response to RQ 3, the identification of constraints makes it possible to identify facilitating conditions for actualization. I found from data analysis of the interviews that this can lead to the translation of unfavourable conditions into facilitating conditions. Facilitating conditions identified from this study include: *good Internet infrastructure, cheap and easy access, capabilities of actors, social media manager/strategist, demand from constituents, supportive regulations, network effect, strong Internet security, and involvement of secondary actors.* It is essential to identify facilitating conditions for social media use in eParticipation to enable stakeholders to design an effective eParticipation plan that aligns with the context where it will be implemented.

Furthermore, the findings of this thesis reveal that during the actualization process of social media affordances, affordance perception by the main actor may change as a result of additional affordance information sourced from secondary actors. Perceptions of constraints and facilitating conditions in the actualization process influence whether the actor will proceed to actualize or go no further than perception (E. Bernhard et al., 2014; Dini et al., 2016; Pozzi et al., 2014; Thapa & Sein, 2018; Volkoff & Strong, 2017). Additional findings from a high level abstraction during the analysis process revealed the importance of secondary actors' involvement as a facilitating condition that turns the unintentional actualization process of new affordances into mindful actualization. During this process, it was found that the main actor changed their perception during actualization as the result of influence by new affordance information from a secondary actor or actors after the actualization process of the original affordance was completed. More importantly, the identification of secondary actors in the actualization process enables the conceptualization and extension of the affordance actualization process model. In this model, other eParticipation actors (e.g. constituents) created awareness of unintentional actualization interacted with the main actor, later yielding a mindful actualization of a new social media affordance. The main actor's changed perception brought about by new

additional affordance information then led to a mindful actualization of new affordances. The findings of this study resulted in a context-specific inductive theory which I have termed the feedback loop actualization process of new affordances, as shown in Figure 6.2. In this figure, I identified the involvement of secondary actors' awareness as one of the facilitating conditions that must exist for a new affordance to be mindfully actualized. I proposed the extension of the affordance actualization process into a feedback loop affordance actualization process with the addition of secondary actors. This model offers a theoretical contribution to the Technology Affordance and Constraint Theory (TACT) in Information Systems.

7.2 Limitations and Future Works

Whilst this thesis has both theoretical and practical implications, it also has some shortcomings. Such limitations must be considered when examining the thesis as a whole. Below, I describe seven limitations and identify potential future avenues.

First, the main focus of the study is the role of social media in eParticipation from the perspective of politicians, using TACT as a lens. However, I understand that when talking about eParticipation, the voice of constituents is just as important as that of politicians. Indeed, without considering constituents' perspectives it is not possible to create a holistic eParticipation narrative. I acknowledge that this is a limitation of this study. However, even though constituents were not the main focus, they were not completely left out of this study. Data from constituents were incorporated into the analysis process in several ways. Firstly, constituents' voices were manifested through documented communication between politicians and constituents that is available on social media. Relevant interactions between politicians and constituents through social media were used as secondary data in this analysis as explained in the data collection and analysis section. Secondly, constituents' voice were also accommodated through interviews in which both constituents and political activists participated. The voices of constituents were also accommodated through a database owned by social media strategists who work for politicians, which were conveyed directly to me during the interviews. Thirdly, this study is a process-based approach which focuses on the actualization process and, thus, has recognized the importance of secondary actors (i.e., constituents). The role of constituents in the mindful actualization of new

affordances was scrutinized and conceptualized. The conceptualization of secondary actors in the affordance actualization process shows the role of constituents in social media affordance actualization process. The fact that this study focuses on the perspective of constituents within the framework of the social media affordance actualization process is of great significance for future work.

Second, this thesis focused on the role of social media in eParticipation from the perspective of politicians as individuals not as a group. I choose to focus on individual levels of affordance to understand factors that influence the actualization process. Accordingly, the scope of my theory development is also at an individual level. This may inhibit the generalizability of the findings of this study to a larger group when researching, for example, organizational affordances or multilevel affordances. Not everyone in a workgroup or institution may enact the same affordances. Furthermore, the extent that their work is interdependent may differ, meaning that they may not be able to coordinate outputs effectively because of differences in the way they use technology (P. M. Leonardi, 2013). Future work could examine politicians as a group to identify shared affordances or group-level affordances that could potentially have an impact on organizational change (P. M. Leonardi, 2013). Investigating affordance actualization at a group level would help to identify an understanding or mechanism for organizational change (Volkoff & Strong, 2017). By focusing on the feedback loop actualization process, future research could build a mid-range theory that is grounded on a specific technology and user as part of IT-enabled organizational change based on a particular organizational goal (Volkoff & Strong, 2017).

Third, while this thesis provides valuable insights into the role of social media within eParticipation through the identification of social media affordances, constraints and facilitating conditions from the perspective of TACT, it does not tell us about the power relations between actors who use social media in eParticipation. Nor does it inform us about the likelihood of a social media project in eParticipation to succeed or fail in meeting its goals at an organizational level. Future studies can examine these issues; for example, by bringing in the concept of Structuration Theory or Actor Network Theory, or indeed any other social science theories that can explain the phenomena from different perspectives, according to the goals of the study.

Fourth, this thesis focuses on the study of factors that contribute to the affordance actualization process without further examining the long-term impact of the feedback loop affordance actualization process. Impact refers to the effects of value-neutral use of an object by its user (E. Bernhard et al., 2014). The impact of either mindful or unintentional social media affordance actualization may lead a politician to re-evaluate any outcomes and compare them with the expected net value of the actualization, based on what had been planned (E. Bernhard et al., 2014). When the actor re-evaluates impact, he or she could so from the perspective of the technology object, the actor himself, or the actor's goals that may be appropriated (E. Bernhard et al., 2014; Burton-Jones & Grange, 2012; P. Leonardi, 2011). Re-evaluation could be first assessed from the perspective of the user in terms of their learning process to attain knowledge about the technology object, domain or the affordance, itself. Thus, the user's characteristics may change in relation to their capability as an individual during affordance actualization (Burton-Jones & Grange, 2012; Strong et al., 2014). Second, the user's goals may change (e.g. lowering of expectations about impact,) to match the actualization experience of the preceding affordance. Regular re-evaluation could benefit the user in terms of ensuring actualization is effective and mindful, as well as any future product or service designer or manager hired to design an effective object for effective use.

Fifth, the framework of the feedback loop affordance actualization process did not further examine the motivations and goals of the identified secondary actors (constituents) in the actualization process. This could lead to several interesting paths for future researchers to explore. For instance, future work in eParticipation and affordance theory could be applied to extend the scope of the feedback loop affordance actualization process to a similar context. Research could focus on the examination of secondary actors in the affordance actualization process, such as their goals, motivations and perceived affordance towards the same or different types of social media as the main actor. Future research could also focus on different properties of the process model, as shown in Figure 6.2, such as the degree of awareness in the actualization process or information about affordance, which includes symbolic expression and external information (E. Bernhard et al., 2014). In addition, future work could extend the framework through including different types of technology objects or different types of actor. The application of the framework could

possibly generate a mid-range theory bound by a specific actor and object in a particular context.

Sixth, my study has not yet examined the possibility of politicians choosing more than one strategy for social media use in eParticipation. I did not investigate how and when certain strategies, or a combination of strategies, are better than others at a particular moment within eParticipation, such as before or after an election. A future research opportunity could be to investigate identified strategies such as *nominal, genuine, instrumental and manipulative strategies* in a temporal view of a particular event, for instance during an election. Researchers could also examine politicians' behavior and social media strategies they use before, during and after an election. Future work could also focus on the use of a particular type of strategy before, during and after an election to understand which strategy is better than others for that particular event and at that particular time. In addition, future work could examine the possibility of a politician applying more than one strategy at different points in time. An examination of a social media strategy in a temporal view could generate practical implications for eParticipation stakeholders, especially managers and social media users.

Seventh, the research method used in this study has its own limitations. Nonetheless, as discussed above, the generalization of findings could be performed in several ways from one context to a different context, from one context to a new theory developed by the researcher, and from one context to an existing theory that the researchers broaden with their new findings (Davison & Martinsons, 2016). My thesis seeks to generalize its findings by investigating phenomena within a specific context and expanding the existing theory by adding value through empirical findings. Lastly, it is recommended that future work approach this area of research from a methodological viewpoint. Future studies could incorporate a multiple case study approach from different countries to provide a more nuanced picture by including cases from different contexts. It is equally important to conduct a cross-case analysis from the perspective of TACT that includes examples from successful and failed cases of eParticipation using social media. In so doing, such studies will help us to better understand the degree of effort in actualization, the level of awareness, any constraints and also any facilitating conditions that could lead to the successful and effective actualization of affordances.

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Appendix A: Semi Structured Interview Questions

1. What social media do you use and why?
2. What do you expect from social media?
3. How active are you in using social media?
4. How do you use social media in relation to your work?
5. What is your objective in using social media and does it change overtime?
6. What do you post in your social media? Does it have any effects?
7. What are the challenges of social media use for you?
8. Do you provide feedback via social media from complaints made by citizens?
9. Do your postings influence political participation by your constituents?
10. What goals are achieved with the help of social media?
11. How social media benefit you as politician?
12. What are disadvantages of social media?
13. Do social media posts and discussion affect your decision-making?
14. Does information from social media matter to you?
15. Does the parliament have interactive website? How effective is it?
16. Does the parliament encourage its members to actively use social media for work?
17. Are you concerned with social media legal consequences?
18. Have you ever experienced any legal implications of social media use?
19. In correlation with IET Law, why do you think legal cases, especially defamation arise from social media use? (please give case examples that you experienced or know)

Appendix B: List of the Referred Documents and Website

Documents

1. A set of national regulations related to information and electronic transaction that involves online media include;
   a. Law number11 of 2008 on Information and Electronic Transaction (IET Law)
   b. Law number 19 of 2016 on the amendment of IET Law
   c. Government regulation number 82 of 2012, the implementing regulation of the IET law
   d. Minister of Communication and Information Technology Regulation Number 19 of 2014 on handling negative constrained internet sites.
   e. Minister of Communication and Information Regulation Number 20 of 2016 concerning Protection of Personal Data in Electronic Systems
2. A set of national regulations related to public services and public information openness include;
   a. Law number 25 of 2009 on public service.
   b. Government regulation number 92 of 2012 on public service.
   c. Law number 14 of 2008, concerning Public Information Openness.
   d. Government regulation number 61 of 2010 concerning implementation of law number 14 of 2008 on Public Information Openness.
3. A set of monthly magazines published by the national parliament of Indonesia.
4. Data report on Digital Indonesia in 2018 from Wearesocial.
5. Data report on Digital Indonesia in 2019 from Wearesocial.
6. Indonesia statistics of 2017, a report by BPS
7. Indonesia statistics of 2018, a report by BPS
8. Indonesia Political statistics of 2017, a report by BPS
9. Indonesia Political statistics of 2018, a report by BPS
10. Indonesia election report; What lies beyond the April election in Indonesia, a report by the EIU
11. Internet Indonesia 2017 by APJII
12. Democracy Index 2018: political participation, protest and democracy, a report by the EIU

13. A set of lecture notes and presentation slides on Social media in Indonesia, social media legal framework and social media legal consequences by Indonesian scholars at UGM and UNAIR.

Websites

1. The official website of House of Representative Indonesia Republic http://www.dpr.go.id/ and its sub-domain.
2. The official website of provincial parliament of Special Region of Yogyakarta https://www.dprd-diy.go.id/ and its sub-domain.
3. Website of Gunungkidul District Council Secretariat https://setwan.gunungkidulkab.go.id/ and its sub-domain.
4. The official website of LAPOR, a social media based national complaint handling system https://www.lapor.go.id/tentang and its sub-domain.
5. The official website of Indonesia Central Bureau of Statistic https://www.bps.go.id/ and its sub-domain.
6. The website of Indonesia online media, data and online research in the fields of economics and business https://katadata.co.id/ and its sub-domain.
7. the official website for Indonesian open data that contains data across ministries, government institutions, regional governments, and all other relevant agencies that produce data related to Indonesia https://data.go.id/ and its sub-domain.
8. the official information website that describes Indonesia as a whole both in the form of data and numbers also in the form of photo and video images https://indonesia.go.id/ and its sub-domain.
9. The website that provides access to the largest data center for legislation and court decisions in Indonesia; https://www.hukumonline.com/ and its sub-domain
10. Media on world news, politics, economics, business and finance https://www.economist.com/ and its sub-domain.
11. The research and analysis division of The Economist Group on Business Intelligence that provides data about countries, cities, industries and companies https://www.eiu.com/home.aspx and its sub-domain.
12. The statistical portal for market data, market research and statistical data https://www.statista.com/ and its sub-domain.

13. The website of global conversation agency, provides social media marketing and communications services to organizations in the United Kingdom and internationally https://wearesocial.com/? And its sub domain.
14. An Interview; Ridwan Kamil and his social media strategy https://www.bbc.com/indonesia/trensosial-42319886
15. The official website of Indonesian ministry of Communication and Information https://www.kominfo.go.id/

Appendix C: Research Publications

1. Dini, A. A., Sæbo, Ø. (2016). *The Current State of Social Media Research for eParticipation in Developing Countries: A Literature Review.* Paper presented at the 2016 49th Hawaii International Conference on System Sciences (HICSS).

2. Dini, A. A., Wahid, F., & Sæbo, Ø. (2016). *Affordances and Constraints of Social Media Use in eParticipation: Perspectives from Indonesian Politicians.* Paper presented at the Pacific Asia Conference on Information Systems (PACIS), Chiayi, Taiwan.

3. Dini, A. A., & Wahid, F. (2017). *Four Strategies of Social Media Use Among Indonesian Politicians.* Paper presented at the International Conference on Social Implications of Computers in Developing Countries (IFIP WG 9.4). Yogyakarta, Indonesia

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