e-Governance of Seoul and Incheon: Citizen Participation Through Digital Platforms

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e-Governance of Seoul and Incheon

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Foreword

This thesis is the result of graduation research that is part of the MA Asian Studies program at Leiden University. The study was conducted within the Politics, Society and Economy of Asia track taught at the Faculty of Humanities. I wish to thank my supervisor, Dr. Zhengfeng Wang, for the advice and assistance offered throughout the research and writing process. I am certain that this renewed sense of academic understanding will be beneficial for endeavors yet to come. Furthermore, I would like to express my gratitude to Dr. Yoonai Han, whose expertise in the field of human- and digital geography was crucial to the interpretation of the research findings.

On a practical note, both English- and Korean-language sources were implemented in the thesis. In line with the academic standard, romanization occurred by means of the McCune-Reischauer system, unless a nonconforming style was adopted by the author(s) of set academic source.

Abstract

In the contemporary age, e-governance as an approach to urban politics aims at strengthening the connectivity amongst various stakeholders. Avenues for discourse between governments and the public are provided through digital platforms. This is done with the intent of establishing a citizen-centric environment. In South Korea, succeeding democratization in the late 1970s and 1980s, citizens as integral to public administration came to the forefront in contemporary urban life. Seoul and Incheon represent two major smart cities, for which digital technologies are the foundation. In South Korea, swift developments in e-governance have consequently resulted in a research gap. To challenge this, the study considers the primary digital government platforms of Seoul and Incheon. Through a content analysis, the effectiveness of the platforms in building social capital and citizen-centricity is deduced. Then, the outcome is interpreted through a revised ladder of citizen participation. The results signify various opportunities and flaws in its e-governance. In Seoul, connectivity as a means of boosting civic empowerment is addressed effectively. Still, citizens are limited in the co-creation process of daily urban policies. In Incheon, basic elements of open data and communication are addressed. Yet, consequences of citizen's input remain largely unaddressed. South Korean policy makers may therefore take note of these repercussions to establish a more effective and efficient digital platform apparatus.

Keywords: Citizen Participation, e-Governance, Incheon, Seoul, Social Capital, Urban Politics

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Introduction

Inherent to any conceptual archetype, an all-encompassing definition of e-governance remains to be established. Nonetheless, the inclusion of modern technologies in urban administration is at the heart of it. Automation, informatization, and transformation are the basic conditions in which e-governance thrives. Instead of a singular overarching body, these initiatives are often heterogeneous and frequently led by public-private partnerships. In addition to this, the goals outlined by city governments tend to be broad, for example increasing access to digital spaces and improving efficiency.[1] Still, digital government platforms may alleviate several roadblocks encountered during administrative urban procedures, such as a scarcity of time and oversight in the communication between citizens and the government, especially in populous urban areas. Technological advances are thus present in multiple dimensions of the city, which includes the presence of digital avenues to communicate, lodge a complaint, and propose actions on policy.

In this thesis, digital technologies will be addressed specifically as it pertains to its situatedness as a catalyst for government-citizen interaction. Theoretically, the role of citizens in urban governance can be characterized as both active and passive, depending on the scope of participation of the citizen. This shows the extent to which digital technologies can aid in the transformation of citizens to a more vital participatory role.[2] To secure the involvement of the public in policy drafting and enforcement, cities are therefore investing increasingly in digital platforms that will aid in achieving exactly that, participation. It is a given that the digital urban space has taken center stage in today's smart city governance. How citizens engage with these platforms depends on the access to internet, socio-economic status, and a sense of belonging.[3]

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[1] Renata Paola Dameri, "Searching for Smart City definition: a comprehensive proposal," *International Journal of Computers & Technology* 11, no. 5 (2013): 2545-2546.

[2] Peter A. Johnson, Pamela J. Robinson, and Simone Philpot, "Type, tweet, tap, and pass: How smart city technology is creating a transactional citizen," *Government Information Quarterly* 37, no. 1 (2020): 1-3.

[3] Els M. Leclercq, and Emiel A. Rijshouwer, "Enabling citizens' Right to the Smart City through the co-creation of digital platforms," *Urban Transformations* 4, no. 1 (2022): 8.

Online correspondence as an avenue for government to public communication and vice versa is frequently addressed as an example of this method, due to its interactive nature and all-day availability. Although the digitalization of the urban space is a more recent phenomenon, the relevance of citizen participation in urban governance has in fact been addressed countless times by politicians, interest groups, and academics. This begs the question in what ways digital platforms have developed to take on a lead role as an intermediary within citizen-government discourse. Technocratically, shared know-how is regarded as pivotal in establishing well-rounded and effective policies. A focus on local knowledge is therefore one of the primary objectives of urban governments.[4] To reach a significant body of participants it could be time efficient to promote e-governance. This has indeed been proven to reduce the gap between citizens and governments, considering the dearth of longevity this outreach may encounter.[5]

In South Korea, digital platforms are widely integrated into contemporary urban life. In fact, according to a 2021 estimate by the Central Intelligence Agency of the United States, roughly 98 percent of the South Korean population has secure access to an internet connection.[6] This earned status as a leader in digitalization has given rise to further integration of digital platforms into the political and governmental landscape of South Korea.[7] In 2021, the Digital Government Masterplan was implemented by the Ministry of the Interior and Safety to both secure and promote digital regulations and integration. Integral to this proposition is the effort to increase citizen interaction through portable devices, such as cellphones, to broaden the reach of e-governance. This plan designated them third place in the 2022 UN e-Government Survey.[8]

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[4] Catherine Elsen, and Clémentine Schelings, "Citizen Participation Through Digital Platforms: the Challenging Question of Data Processing for Cities" (Conference paper, The Eighth International Conference on Smart Cities, Systems, Devices and Technologies, Belgium, 2019).

[5] Lisa Schmidthuber, Dennis Hilgers, and Krithika Randhawa, "Public crowdsourcing: Analyzing the role of government feedback on civic digital platforms," *Public Administration* 100, no. 4 (2022): 960-961.

[6] Central Intelligence Agency, "Field Listing – Internet Users," CIA, April 11, 2024, https://www.cia.gov/the-world-factbook/field/internet-users/.

[7] Sen Zhan, and Choong-Sik Chung, "Policy Advices for the Success of Digital Platform Government in South Korea," *Journal of Platform Technology* 10, no. 3 (2022): 11-15.

[8] Digital Government, "Welcome to Digital Governmnent," Digital Government Korea, April 11, 2024, https://www.dgovkorea.go.kr/.

Digital platforms have shown to be the primary avenue for e-governance, especially pertaining to citizen participation. This is in large part due to its centralized point of reference, which is easily discovered in web browsers and includes a variety of services that are found on its page. In the case of urban South Korea, a rapid rise in urbanization caused a growth in digital platform government. South Korea's capital city Seoul, officially Seoul Special City, comprises the largest urban area in the country with nearly ten million residents as of 2023.[9] Historically, the city has been inhabited from premodern times onward.[10] Democratization resulted in plans to build up and revitalize the city to modern standards. Currently, a focus on e-government is addressed extensively in literature, through which the citizen-centric approach is reproduced.[11]

Incheon, officially Incheon Metropolitan City, displays a rather peculiar and clearly outlined strategy as it pertains to the smart city. Like Seoul, this coast city was part of the ubiquitous city initiative, which dominated South Korean urban discourse in the early 2000s. The venture, which encompassed numerous urban areas, focused heavily on infrastructure and connectivity, which are both vital to digital communication. Incheon has also advanced its turn toward the smart city label, developing digital services specifically targeting citizens who reside there. This is especially true for the newly built Songdo area of the city.[12] Yet, the contrasting developmental trajectories of Seoul and Incheon are not addressed substantially in academic literature. So, to discover these implications, the following research question will be examined.

How do digital government platforms inform the effectiveness of e-governance in achieving social capital through citizen participation in South Korean smart cities Seoul and Incheon?

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[9] Seoul Metropolitan Government, "City Overview," Seoul Metropolitan Government, April 11, 2024, https://english.seoul.go.kr/seoul-views/meaning-of-seoul/4-population/.

[10] Diego Giron, "Seoul; brief insight into its history and urban development," *IGLUS Quarterly* (2018): 1-12.

[11] Urban Agenda Platform, "Sustainable Cities and Communities, Implementing the New Urban Agenda," April 11, 2024, https://www.urbanagendaplatform.org/best-practice/seouls-people-centric-urban-regeneration-project-model-sustainable-urban-growth.

[12] Myung Hee Kim, "Transition of Initiative from Ubiquitous City to Sustainable Smart City by Korea: Focusing on the Case of Songdo City" (Conference paper, International Exchange and Innovation Conference on Engineering & Sciences (IEICES), Japan, 2019).

1. Literature Review

Scholarly discourse on the smart city and its denotation has evolved rapidly since the late 1990s. As a consequence of emerging complications succeeding widespread urbanization in the late 21st century, a call for an interconnected approach to urban problem solving encouraged policy makers and academics to uncover more efficient and sustainable urban developmental plans.[13] In turn, a juxtaposition was highlighted between various approaches to urban governance.[14] In the early stages of research, a social science and spatial planning outlook on the smart city tends to be echoed most prominently throughout academic studies. De facto, the hypothetical nature of smart city research relies predominantly on theories of developmental economic growth.[15]

On contents, information and communication technology, as well as digital governance, are vigorously addressed in the literature of the early 2000s.[16] Consequently, these ideas were criticized for their authoritarian tendencies and lack of social intelligence.[17] Subsequently, the bottom-up approach, which includes citizens in the policy to person process, gained a rapid increase in academic traction.[18] To address the shortcomings of technologies alone, a more comprehensive attitude appears to be favored by most academics. Still, a critical assessment of practical platform government initiatives and outcomes remains underexplored, as theories and practices in this field are commonly superscribed independently, rather than simultaneously.[19]

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[13] Justyna Winkowska, Danuta Szpilko, and Sonja Pejić, "Smart city concept in the light of the literature review," *Engineering Management in Production and Services* 11, no. 2 (2019): 71-73.

[14] Chuanjun Zheng et al., "From digital to sustainable: A scientometric review of smart city literature between 1990 and 2019," *Journal of Cleaner Production* 258 (2020): 2-3.

[15] Yirang Lim, Jurian Edelenbos, and Alberto Gianoli, "Identifying the results of smart city development: Findings from systematic literature review," *Cities* 95 (2019): 8-9.

[16] Luca Mora, Roberto Bolici, and Mark Deakin, "The first two decades of smart-city research: A bibliometric analysis," *Journal of Urban Technology* 24, no. 1 (2017): 3-8.

[17] Jonas Breuer, Nils Walravens, and Pieter Ballon, "Beyond defining the smart city. Meeting top-down and bottom-up approaches in the middle," *TeMA-Journal of Land Use, Mobility and Environment* (2014): 156.

[18] Anthony M. Levenda et al., "Rethinking public participation in the smart city," *The Canadian geographer/Le géographe canadien* 64, no. 3 (2020): 344-350.

[19] Walter Castelnovo, Gianluca Misuraca, and Alberto Savoldelli, "Smart Cities Governance: The Need for a Holistic Approach to Assessing Urban Participatory Policy Making," *Social Science Computer Review* 34, no. 6 (2016): 730-736.

Among contemporary technologies, digital platforms are increasingly put into place to serve as a mediator for the input and output of information. The concept of e-governance is one observed largely in the field of public administration and political science.[20] Thus, the role of citizens in the urban governance of smart cities is often addressed primarily from the angle of shared know-how for the government, rather than its implications for the general public.[21] Another criticism ascribed to the body of literature that comprises the topic of citizen participation is the lack of non-conventional modes of discourse.[22] Nonetheless, cities at large tend to encourage digital participation as a means of increasing a sense of community and relative influence. Research shows that digital platforms, like government websites, can indeed stimulate mutual trust and cooperation between political entities and the public.[23] So, approaching such platforms from the vantage point of citizens may in fact promote more widespread political participation.

However, one of the most pronounced criticisms of these digital platforms used by e-governments is their reliance on private partnerships to secure a quick and easy transition to the digital urban space.[24] The issue of independence comes into play, as studies have shown that public-private partnerships in urban environments may hinder accountability and transparency, two goals often espoused by the government bodies of these urbanized areas.[25] Occasionally, this argument is challenged by underlining the necessity of public-private (PPP) partnerships in establishing innovative and creative solutions to fundamentally increase public participation.[26]

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[20] Soonhee Kim, Kim Normann Andersen, and Jungwoo Lee, "Platform Government in the Era of Smart Technology," *Public Administration Review* 82, no. 2 (2022): 362-366.

[21] Ayad Al-Ani, "Government as a Platform: Services, Participation and Policies," in *Digital Transformation in Journalism and News Media: Media Management, Media Convergence and Globalization*, (Cham: Springer International Publishing, 2017), 179-185.

[22] Yannis Theocharis, and Jan W. van Deth, "The continuous expansion of citizen participation: A new taxonomy," *European Political Science Review* 10, no. 1 (2018): 141.

[23] Caroline J. Tolbert, and Karen Mossberger, "The effects of e-government on trust and confidence in government," *Public Administration Review* 66, no. 3 (2006): 354-365.

[24] Adrian Smith, and Pedro Prieto Martín, "Going Beyond the Smart City? Implementing Technopolitical Platforms for Urban Democracy in Madrid and Barcelona," in *Sustainable Smart City Transitions*, (London: Routledge, 2022), 282.

[25] Astrid Voorwinden, "The privatised city: Technology and public-private partnerships in the smart city," *Law, Innovation and Technology* 13, no. 2 (2021): 439-444.

[26] Georgios Siokas, Valia Kelaidi, and Aggelos Tsakanikas, "The smart city as a hub for nourishing public-private partnerships," *Sustainable Cities and Society* 76 (2022): 2-3.

Given the contested nature of digital platforms, its beneficial characteristics, and its reliance heavy essence we now turn its intended purpose. Citizen participation, as an integral part of (e-)governance, has been addressed habitually by academics alike. Commonly ascribed to author Sherry. R. Arnstein, the ladder of citizen participation intends to serve as a typology in which the extent of citizens' influence in determining policy is characterized based on its impact. Broadly, this influential theory outlines three distinct categories: degrees of citizen participation, degrees of tokenism, and non-participation. These are all divided into two or three sub-groups.[27] Originally constructed in the context of a post-Civil Rights Act United States, the simplistic epitome of the typology allows it to substitute as the basis for various theoretical applications.[28].

However, due to digitalization within public policy and governance, a paradigm shift occurred in which digital platforms have become the primary source of citizen-government interaction. This change requires a critical re-evaluation of the categories and groups shown within Arnstein's ladder.[29] To deal with these shortcomings, attempts to incorporate digital avenues into typologies of citizen participation are illustrated in literature of the past decade.[30] Nonetheless, there appears not to be a consensus on one typology, as the majority is based on examples to form its core arguments.[31] Hence, it would be beneficial to establish a framework that takes into account both the nature of digitalization and its practices, as well as practical implications of the local state of affairs.[32] In South Korea, the link between theory and citizen experience has not been addressed sufficiently in academic literature discussing e-governance.

[27] Sherry R. Arnstein, "A ladder of citizen participation," *Journal of the American Institute of Planners* 35, no. 4 (1969): 216-224.

[28] Sengboon Lim et al., "Citizen participation in building citizen-centric smart cities," *Malaysian Journal of Society and Space* 14, no. 4 (2018): 45-48.

[29] R. M. Mukonza, "E-governance: a new paradigm in public administration," *Journal of Public Administration* 49, no. 2 (2014): 499-503.

[30] Theocharis, and van Deth, "A new taxonomy," 139-145.

[31] Stephen Elstub, and Oliver Escobar, "A Typology of Democratic Innovations" (Conference paper, Political Studies Association's Annual Conference, Glasgow, 2017).

[32] Amal Marzouki, Sehl Mellouli, and Sylvie Daniel, "Towards a Context-based Citizen Participation Approach: A Literature Review of Citizen Participation Issues and a Conceptual Framework" (Conference paper, The 10th International Conference on Theory and Practice of Electronic, India, 2017).

Although international research on South Korean e-governance and its applications is limited, Korean-language literature is rich in magnitude. Generally, the issue of open information and transparency is put forth most frequently. Since ICT constitutes the main channel to realizing citizen participation, it is unsurprising that many South Korean digital platforms focus on this.[33] Community building and connectivity are also highlighted throughout the digital platforms of major South Korean urban centers. Still, because of top-down policy, it is frequently one-sided information flows that limit the interactive mobility of users.[34] Even throughout South Korean academic literature there is a deficiency of studies that take into consideration practical realizations of these digital platform. This is in part the result of rapid developments in e-governance and oversaturated online websites, of which community building lies at the core.[35]

In line with the research question, Seoul and Incheon will be addressed as case studies. Theoretically, the relationship between the government and the governed is interconnected, and therefore represents a unique typology.[36] The contrast between Incheon's contemporary "smart" population[37] and Seoul's naturally developed body of citizens[38] may result in different findings. This paper therefore seeks to clarify the extent to which digital platforms can communicate and encourage citizen participation. The comparative aspect of these two smart cities will come forth mainly in their placement on the revised ladder of citizen participation that is to be addressed in the chapter on methodology. This will be done through a mixed-method approach.

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[33] Woongbee Son, "toshi chǒnja kǒbǒnǒnsǔ shisǔt'emǔi tonghakkwa shilche," [Dynamics and Realization of Urban e-governance System] *GRI Research Journal* 19, no. 2 (2017): 341.

[34] Jŏngsŏk Song, Minjun Chŏn, and Myŏnggil Ch'oe, "konggonggigwan chŏngboboho kŏbŏnŏnsǔ sujune yŏnghyangǔl mich'inǔn yoine kwanhan yŏn'gu," [Study on Factors Affecting the Level of Information Security Governance in Korea Government Institutions and Agencies] *Journal of the Korean Electronic Commerce Society* 16, no. 1 (2011): 148.

[35] Kim, Andersen, and Lee, "Platform Government," 362.

[36] Hossein Havaeji, and Amir Albadvi, "Citizen feedback and executives: Improving government performance through citizen relationship management," *International Journal of Organization Theory & Behavior* 22, no. 3 (2019): 242-244.

[37] Olesya Benedikt, "The Valuable Citizens of Smart Cities: The Case of Songdo City," *Graduate Journal of Social Science* 12, no. 2 (2016): 22-26.

[38] Kon Kim, Blaž Križnik, and Krystallia Kamvasinou, "Between the state and citizens: Changing governance of intermediary organisations for inclusive and sustainable urban regeneration in Seoul," *Land Use Policy* 105 (2021): 10-11.

2. Methodology

This investigative research consists of a mixed-method approach with a primary focus on the case studies. On the qualitative side, Arnstein's ladder of citizen participation will be revisited and critically re-adjusted to accommodate contemporary digital infrastructures. This renewed framework will serve as the basis for interpreting the quantitative results. The data collection will occur on the primary digital platform of the Seoul and Incheon government websites. In short, a comprehensive comparison of the two approaches to e-governance will produce an advanced understanding of its relevance for citizen participation in the South Korean smart city.

2.1 Framework

To grasp the ideals that underline Arnstein's ladder of citizen participation, a visual reflection of its divisions will be presented.[39] Then, critical elements of digitalization are debated and assimilated into the ladder to create a unique typology that serves as the basis for categorization. The classes below are represented from most to least influential, starting at the top of the list.

Citizen Power	Table 1 | Arnstein's Ladder of Citizen Participation
• **Citizen Control**	Citizens are in complete managerial charge of the decision making.
• **Delegated Power**	Citizens acquire at least a vast majority of decision making seats.
• **Partnership**	Citizens negotiate trade-offs and request voting and funding rights.
Tokenism	
• **Placation**	Citizens are granted official, but limited, governmental positions.
• **Consultation**	Direct requests for citizen input from the government to the people.
• **Informing**	One way communication from the government to its citizen body.
Non-Participation	
• **Therapy**	Initiatives to cure citizens as the problem to public administration.
• **Manipulation**	Those in power give citizens a fictitious idea of (direct) influence.

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[39] The Open University, "4.1 Arnstein's ladder of participation," Open Learn, April 18, 2024, https://www.open.edu/openlearn/mod/oucontent/view.php?id=21024&section=4.1.

Arnstein's ladder of citizen participation is theoretical. In this case, her approach is normative, as there is an undertone of preference expressed throughout its descriptive texts.[40] Originally, the ladder came to be in the context of a post-Civil Rights Act United States. Questions on authority and the legitimacy of governments were heavily discussed in U.S. academic circles. Hence, this model was established to reflect how citizen participation affects public perception. Still, due to the sign of the times, any mention of digital technologies is absent from this rendition. Nonetheless, the broad range supplied by the framework allows for interpretations to exist simultaneously. To challenge its abstract nature and lack of digital factors, a contemporary framework is proposed to deal with these shortcomings. This builds on broader scholarship that is concerned with citizen participation in the modern age. To address the South Korean case in its regional and local context, an interview was conducted with Dr. Yoonai Han (appendix 1).

In the case of South Korean democratization, the issue of community building and social capital are especially pronounced and therefore do not align with earlier revised models.[41] So to start, three alternative categories show commonalities, but underscore the applicable areas of Arnstein's ladder more deeply. Even though non-participation is inherent to public participation, the digital government environment generally does not propose initiatives in which citizens are displayed in a critical light. Especially in smart city discourse we find that a sense of hyper-positivity is commonly reproduced in papers.[42] Instead, the following classification is suggested: collaboration, engagement, and information. In turn, these are divided into clearly separate sub-categories that are inherent to e-governance. Eventually, the interpretation will show how these categories link citizen participation to social capital, which affects citizen's daily lives. Non-digital participation will not be a point of focus throughout this thesis to create a concise study.

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[40] The Open University, "Arnstein's ladder."

[41] Sangmin Kim, "The workings of collaborative governance: Evaluating collaborative community-building initiatives in Korea," *Urban studies* 53, no. 16 (2016): 3547-3550.

[42] Simon Joss et al., "The Smart City as Global Discourse: Storylines and Critical Junctures Across 27 Cities," *Journal of Urban Technology* 26, no. 1 (2019): 3-9.

2.2 Classification

To start, in the collaboration category, subsections 1.1 through 1.3 constitute significant and direct engagement in the policy process of smart city infrastructures. To incorporate modern technologies into contemporary political life, many cities encourage the usage of digital platforms as a means of co-creating the South Korean smart city.[43] Importantly, a differentiation is presented between immediate, in-depth, and general forms of engagement. Immediate collaboration constitutes binding votes, in-depth initiatives are thorough participatory methods, whereas general forms of engagement are generic in nature and are often one-time occurrences. So, this is further developed into conclusive, discourse, and survey related forms of outreach. These are expanded from Arnstein's ladder to include online modes of participation. Earlier models have not considered the broad range of available persons in online communication.

Tables 2.1 and 2.2 sample forms of engagement of which the intent is not to directly influence policy, but rather increase awareness between government and citizens as it pertains to the desires and problems that underline urban societies. This is especially relevant in the case of smart city governance, as we have previously established that the unequal nature of digital awareness may result in the underrepresentation of certain individuals in the urban setting.[44] In order to discover the extent to which each government website appoints avenues to include and encourage citizens to engage in the policy process, both communication and representation will be addressed. The prior will consider the means of communication freely accessible through the website, whereas the latter hints at (non)-visual representations of citizens' daily urban life. Such initiatives may build social capital and add a sense of voice and power in everyday affairs. This shift towards a shared government where everyone engages is stimulated by digitalization.

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[43] Taejun Lee, and Seulki Lee, "Local Municipality Public Value Co-Creation through Democratic E-Governance: A Mixed Method Analysis of Korean Municipal Government Websites," *KDI School of Pub Policy & Management Paper Forthcoming* (2020): 7-11.

[44] Tina Kempin Reuter, "Human rights and the city: Including marginalized communities in urban development and smart cities," *Journal of Human Rights* 18, no. 4 (2019): 387-391.

Transparency is discussed last in category three. It has become clear from studies that mutual trust and understanding can only fully develop if there is a baseline of transparency. It is hence anticipated that in the digital age, e-governments encourage open data and communication.[45] So, the disclosure of information is included in tables 3.1 and 3.2. Information is interpreted through a wide range of topics, which includes, but is not limited to, reports on governmental meetings, policy proposals, smart city initiatives, and maintenance updates. However, since the focus of the research is on citizen participation, a clear distinction is made between information which provides the opportunity for discourse, and that for which a feedback loop is absent. In this case, a feedback loop is considered to be applicable when an avenue for response is included directly on the website. This includes the ability to give feedback, comment, or (dis)like a post. The relevance of a feedback loop is stressed throughout studies concerning representation.[46]

This renewed framework deals with the criticism that Arnstein's typology cannot live up to citizen participation in the modern age. Moreover, it distinguishes between the foundation of actual influence, and modes of representation that do not affect policy directly. Nonetheless, it must be noted that although outlets are provided to embolden the incorporation of urban populations in governance, individual circumstances may diverge the findings of this research. To represent accurate and objective results, both websites will exclusively consider pages and posts of the current year, namely 2024. Naturally, (digital) urban governance is ever changing, and it would therefore be imperative to frequently revisit the objects of this research.[47] On the adjoining page, the detailed version of the revised ladder of citizen participation is visually represented. To quantify the results for chapter five, examples of each category are indicated.

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[45] Marius Profiroiu et al., "E-governance can promote transparency in public administration" (Conference paper, BASIQ International Conference on New Trends in Sustainable Business and Consumption, Italy, 2019).

[46] Davin J. Baxter, "E-governance and e-participation via online citizen budgets and electronic lobbying: Promises and challenges," *World Affairs* 180, no. 4 (2017): 4-5.

[47] N. Bindu, C. Prem Sankar, and K. Satheesh Kumar, "From conventional governance to e-democracy: Tracing the evolution of e-governance research trends using network analysis tools," *Government Information Quarterly* 36, no. 3 (2019): 385-387.

Table 2 | Revised Ladder of Citizen Participation

1. Collaboration		
1.1 Conclusive Votes	Citizens can digitally cast their **votes** on smart city policy proposals / initiatives.	I. Referendums II. Online Voting III. Opinion Polls
1.2 Discourse Groups	Citizens can digitally sign up for, or **participate** in, direct consultations with the city.	I. Focus Groups II. Chat Groups III. Contests
1.3 Survey Initiatives	Citizens can create and/or fill out **surveys** for/by the smart city governmental institution.	I. Questionnaires II. Online Surveys III. Consultation
2. Engagement		
2.1 Communication	Citizens can **communicate** directly with the government though the proposed website.	I. Contact Forms II. Customer Support III. Minwon (민원)[48]
2.2 Representation	Citizen views and/or stories are **presented** throughout the websites and its sub-pages.	I. Video Reporting II. Blog Posts III. Anecdotes
3. Information		
3.1 Feedback Loop	Citizens can directly respond to most **content** posted by the government on the website.	I. Feedback II. Comments III. Dis(likes)
3.2 Information Loop	Information posted by the government is by means of sole **one-way** conveyance.	I. Meeting Notes II. Policy Reports III. Maintenance

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[48] Minwon: The term stands for complaint in Korean. It may be found on government websites to register concerns.

2.3 Data Collection

Taking note of the revised ladder of citizen participation shown in table 2, we now turn to data collection and interpretation. The case studies addressed in this research are Seoul and Incheon. They are especially viable due to the magnitude of online accessible information on a municipal level. The primary digital platforms of the respective governments will be examined. In general, urban governments' websites are understood to function as a first impression of the city, as well as a tool which may boost, or occasionally hinder confidence in e-governance.[49] Its presence in South Korea is undeniable, but a clear outline of its engagement with the general public remains underexplored. The purpose of this study is twofold. First, the usability and availability of citizen participation platforms on the government websites will be systematically categorized, in accordance with the revised ladder of citizen participation. Then, the data will be interpreted to address the research question, considering social capital and community building inclinations.

The digital platforms selected for this study are the Seoul Metropolitan Government[50] and the Incheon Metropolitan City[51] websites. Songdo will be addressed separately to consider its more contemporary development and focus on citizen participation.[52] Each website offers services in various languages. However, for the sake of conciseness only the Korean-language website will be addressed, as its population is largely native to the country. Each website houses a separate citizen engagement platform, which will be the source of data collection. To ensure accuracy, all data from January 1st, 2024 will be addressed in the research. Occasionally, a small case study will be conducted to inquire about the follow-up of certain initiatives. This depends at large on the accessibility of information as offered by the respective municipal governments.

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[49] Norman E. Youngblood, and Jo Mackiewicz, "A usability analysis of municipal government website home pages in Alabama," *Government Information Quarterly* 29, no. 4 (2012): 583.

[50] Seoul Metropolitan Government, "Main," Seoul Metropolitan Government, April 19, 2024, https://www.seoul.go.kr/main/index.jsp.

[51] Incheon Metropolitan City, "Main," Incheon Metropolitan City, April 19, 2024, https://www.incheon.go.kr/index.

[52] Chad Anderson, "The Scene of New Songdo," *Asian Journal of Cultural Policy* 2, no. 2 (2015): 1.

To contextualize the findings and current state of South Korean smart city governance, a semi-structured interview was conducted with Dr. Yoonai Han, who graduated with a doctorate in Geography from the London School of Economics and Political Science (LSE). Her expertise on critical urban theories, digital geography, and South Korean urban development will clarify intricate aspects defining the research field. Moreover, her insight into the South Korean communicative culture adds to a comprehensive understanding of the norms and values that underscore citizen participation. This is especially valuable in the contemporary digital space, which reflects the form of government-citizen interaction preferred in the sociopolitical context. In South Korea, positive perceptions of government to citizen communication have been linked to an increase in policy acceptance.[53] This sense of trust and connectedness will prove vital in understanding the core drivers of social capital and community building. In broad terms, this capital sees relationships as resources which can induce a developmental increase in satisfaction.

At last, the intended purpose of this research is to empirically approach the contents of each governmental website. Still, the classification will shed light on the form of governance preferred in the smart city context. This content analysis must therefore be conducted critically. Cultural-specific conditions are also stressed throughout content-related research papers.[54]. The next chapter on background will first provide an overview of developments in democratization and e-governance in South Korea. Additional chapters on Seoul and Incheon respectively will then denote the primary conditions in which urban politics occur. A brief historical overview will also be presented to make sense of the contemporary situation. Arguably, South Korea's late democratization in the East-Asian context marks a significantly less prominent timeframe in which e-governance can mature, and it will therefore be pertinent to find out what this entails.

[53] Dong-Young Kim, and Junseop Shim, "Government communication and public acceptance of policies in South Korea," *International Review of Public Administration* 25, no. 1 (2020): 44-45.
[54] Heeman Kim, James R. Coyle, and Stephen J. Gould, "Collectivist and Individualist Influences on Website Design in South Korea and the US: A Cross-Cultural Content Analysis," *Journal of Computer-Mediated Communication* 14, no. 3 (2009): 582.

3. Background

3.1 Governance to e-Governance

In the case of South Korea, simultaneous efforts for democratization and integration of digital technologies resulted in a unique and often tumultuous developmental path.[55] In this chapter, e-governance will be addressed in the context of South Korean national politics from the mid-20th century to now, as a means of contextualizing the approaches in Seoul and Incheon. South Korea's civil society was originally defined by authoritarian military rule post-Korean War, up until democratization in 1987.[56] Two fundamental moments reflected power vacancies in the South Korean political landscape of the 1970s and 1980s.[57] In 1979, after the assassination of then President Park Chung Hee, an opportunity to democratize did not flourish. Later, in 1987, the pressure from activist groups and widespread opposition forged in a new era of democracy.

In line with the authoritarian nature of early South Korean politics, the war-torn country was focused primarily on economic rejuvenation and the fight against communist thought.[58] There was simply a lack of time and space, and certainly willingness from the government perspective, to actively engage with its citizens on proceedings that were considered acute and momentous. Following calls for democratization, the discourse around public interaction and participation grew stronger, with mechanisms to achieve this slowly being put in place in a top-down process. In fact, although simultaneous growth was realized further in neighboring Japan, South Korea recognized the relevance of a strong communications network as a catalyst for socio-economic development. Hence, investments rose steadily to increase city's social capital.

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[55] Choong-Sik Chung, Hanbyul Choi, and Youngmin Cho, "Analysis of Digital Governance Transition in South Korea: Focusing on the Leadership of the President for Government Innovation," *Journal of Open Innovation: Technology, Market, and Complexity* 8, no. 1 (2022): 1.

[56] Sunhyuk Kim, and Jong-Ho Jeong, "Historical Development of Civil Society in Korea Since 1987," *Journal of International and Area Studies* (2017): 4.

[57] Seongyi Yun, "Democratization in South Korea: Social Movements and Their Political Opportunity Structures," *Asian Perspective* (1997): 146.

[58] Eun-Jeung Lee, "The 1960s in South Korea: Modernisation, Nationalism and the Pursuit of Democratisation," *International Quarterly for Asian Studies* (IQAS) 52, no. 3-4 (2021): 199-203.

Around the Seoul Olympics of 1988, a significant boost in investments allowed the country to compete adequately with states in the region. This was further exemplified by compressed urbanization, which followed the installation of electrical power grid networks.[59] Since the early 2000s, sometimes deemed the third, fourth, and fifth phase in the development of e-governance, the available systems grew both in number and on the issue of connectivity.[60] In broad terms, these phases represent a change from administrative information sharing to the maturing of e-governance through big data. The latter is seen predominantly within larger municipalities. This is due to the sizable sample population of which data tends to more reliable. In turn, these numbers are used to enhance public policy and address concerns of specific groups.

Still, South Korea's e-governance has faced, and still does today, many challenges. Among these is the inclusion, and most importantly exclusion, of groups of individuals for whom accessibility is largely determined by predisposed factors. Both socio-economic[61] and age[62] related divides are clearly laid-out in the present day. Research displays that a gender divide is also at hand[63], but this has been challenged in the case of South Korea.[64] Taking into consideration these factors will aid in the analysis of Seoul and Incheon's digital government platforms. It will become apparent if, and in what ways, these issues of inequality are addressed. In general, it does become clear that the country actively pursues strategies to raise awareness of e-governance through mass-media promotion, online banners, and social media campaigns.[65]

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[59] James F. Larson, "Network-centric digital development in Korea: Origins, growth and prospects," *Telecommunications Policy* 41, no. 10 (2017): 919-921.

[60] Tina George Karippacheril et al., B*ringing Government into the 21st Century: The Korean Digital Governance Experience* (Washington D.C.: World Bank Publications, 2016), 5.

[61] Hiroshi Ono, and Madeline Zavodny, "Digital inequality: A five country comparison using microdata," *Social Science Research* 36, no. 3 (2007): 1136.

[62] Inkwan Chung, "han'gugŭi tijit'ŏl pulp'yŏngdŭng: t'etijit'ŏl chŏngbogyŏkch'a shilt'aejosat'e 2014~2019 punsŏk," [Digital Inequality in Korea: Evidence from Digital Information Gap Survey 2014-2019] *The Journal of Humanities and Social Sciences* 21, no. 12 (2021): 1883-1884.

[63] Ali Acilar, and Øystein Sæbø, "Towards understanding the gender digital divide: A systematic literature review," *Global Knowledge, Memory and Communication* 72, no. 3 (2023): 240-249.

[64] Yeon-Tae Choi, and Sangin Park, "Understanding gender inequality in central e-government: A Korean case study," *Government Information Quarterly* 30, no. 3 (2013): 303.

[65] Jooho Lee, and Jing Shi, "Citizens' Use of E-government and E-participation Applications and Public Values in Korea and China," (Conference paper, The 21st Annual International Conference on Digital Government Research, South Korea, 2020).

3.2 Seoul: A Blueprint of e-Governance

South Korea's northern capital Seoul underwent, and frequently took on a foundational role, in the digitalization of the citizen participation apparatus. However, in the beginning we must consider Seoul's development into the smart city that is proclaimed in the present day.[66] In the decades succeeding independence, Seoul's rapid urbanization prompted the city's government to invest heavily in broadband availability.[67] Broadband is wide-bandwidth data transmission, or colloquially referred to as high speed, and offers large scale transmission of data, messages, and digital content. Governmental interest in broadband has increased steadily in the past few decades, as the introduction of broadband is associated with various socio-economic benefits, such as more convenient access and connectivity.[68] One of the most consequential aspects of broadband is the increase in access to large amounts of data, which are seen on digital platforms.

Henceforth, broadband accessibility is often the first step to ICT integration in urban politics. In South Korea, a strong government-led effort to integrate broadband is defined by an informal cooperation of public and private partnerships. So, private companies would generally follow suit if initiatives were encouraged on a nation-wide level.[69] Research shows that Seoul's government employed a similar approach.[70] Currently, these investments led to the creation of a data highway system that, together with widespread internet access, allows digital platforms to transfer large amounts of data efficiently.[71] In the case of the Seoul Metropolitan Government website, broadband lets various portals on citizen engagement, policy proposals, and smart city infrastructure be interconnected and transfer the relevant data to all visitors in a swift procedure.

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[66] Giron, "Seoul," 1.
[67] Anthony M. Townsend, "Seoul: Birth of a Broadband Metropolis," *Environment and Planning B: Planning and Design* 34, no. 3 (2007): 396-398.
[68] Lucy Firth, and David Mellor, "Broadband: benefits and problems," *Telecommunications Policy* 29, no. 2-3 (2005): 224.
[69] Sung-Hee Joo, "Broadband Internet Adoption in Korea: A maverick or a model to follow," (Conference paper, The 33rd Research Conference on Communication, Information and Internet Policy, Washington D.C., United States).
[70] Dong-Hee Shin, "Design and Development of Next Generation of Information Infrastructure: Case Studies of Broadband Public Network and Digital City," *Knowledge, Technology & Policy* 18, no. 2 (2005): 117-119.
[71] Myounggu Kang, "Smart city: a case of Seoul," *Journal of Environmental Design and Planning* 11 (2015): 96.

Seoul's effort to develop a benchmark for e-governance is not of domestic intent only. In fact, the international approach Seoul is conducting to globalize e-governance as the urban standard is indicated in their founding of the WeGO initiative.[72] Short for the *World e-Governments Organization of Cities and Local Governments,* the organization established in 2010 includes fifty cities that support the chief principles of innovation and public-private partnership. Its development was led by prominent figures with expertise in governance and aimed at increasing connectivity to challenge urban issues. The WeGO website therefore insists on the cooperation between governments and private organizations. Their mission is briefly indicated as follows[73]:

> *WeGO promotes and facilitates the worldwide transformation of cities to smart sustainable cities. WeGO is a global platform for cities and their partners to leverage their innovation potential, enhance their digital capabilities, promote digital ethics, and develop transformative solutions for smart sustainable cities. WeGO fosters and improves international exchange, cooperation, project implementation, and learning amongst cities and with their partners. (Mission outlined by WeGO on its main platform)*

However, Seoul's approach to smart city governance also embodies a more direct linkage with citizens. Social media platforms have provided a short-term solution to simple inquiries of citizens regarding maintenance notices or mundane policy concerns. This form of engagement is reflective of the attempt to blur the line between the government and the governed, through a less bureaucratic environment.[74] Nonetheless, this research will solely consider the Seoul Metropolitical Government website as the focus of the case study. Further research may be conducted on the effectiveness of other initiatives, such as those of WeGO's participating cities, and the employment of various social media platforms in connecting with the city's population.

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[72] Seoul Metropolitan Government, "Seoul e-Government," Seoul Metropolitan Government, April 25, 2024, http://susa.or.kr/sites/default/files/resources/Seoul%20e-Government%20%28English%29.pdf.

[73] WeGO, "Overview," WeGO, April 25, 2024, https://we-gov.org/about-us-overview/.

[74] Seok-Jin Eom, Hanchan Hwang, and Jun Houng Kim, "Can social media increase government responsiveness? A case study of Seoul, Korea," *Government Information Quarterly* 35, no. 1 (2018): 115-119.

3.3 Incheon: The International e-City

The development of Incheon, short for Incheon Metropolitan City, is slightly juxtaposed with the urban progression of Seoul. The area, part of the ubiquitous city project of South Korea, is located on the northwestern coast and is part of the Incheon Free Economic Zone. The friendly economic environment has caused much of the city to be built up by means of private-public investments.[75] In the present, the city houses one of the largest airports in the region, Incheon International Airport. This speaks to the internationally oriented development of Incheon. This contemporary approach is proclaimed by the Incheon Metropolitan Government as follows[76]:

> *Incheon is home to so many "first ever" developments in Korea. Incheon aspires to be an innovative city that does everything first in Korea. It wants to become a city that does everything the best in Korea. As such, being the "First Ever" is a core value championed by Incheon as part of its city brand. "First Ever" represents the dynamism of Incheon, its courage to take on new challenges, and willingness to open new doors for Korea. Simply put, it represents the spirit that has helped Korea grow into the country of today.*

On its face, Incheon adopts a similar approach to Seoul as it pertains to e-governance and citizen participation. The government website provides a separate portal that serves as a hub for issues on civic engagement.[77] Besides, on digitalization, investments in sensor tracking capabilities and automation have allowed much of the region's infrastructure to function more efficiently, requiring less human interference in the process. Yet, research suggests that the primary vantage point from the government is emblematic of a reluctance to put citizen's experience before technological innovation.[78] Instead, it is assumed that the prior will automatically be achieved.

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[75] Benedikt, "Valuable Citizens," 20-21.
[76] Incheon Metropolitan City, "City Brand," Incheon Metropolitan City, June 7, 2024, https://www.incheon.go.kr/en/EN010202.
[77] Incheon Metropolitan City, "시민참여," Incheon Metropolitan City, June 7, 2024, https://www.incheon.go.kr/IC020301.
[78] Ch'ŏngwŏn Kim, "inch'ŏn songdo sŭmat'ŭshit'i palchŏnbangane kwanhan yŏn'gu: yushit'iesŏ sŭmat'ŭshit'iro," [A study on smart city development plans in Songdo, Incheon: From U-city to smart city] (Dissertation, Inha University, 2019), 228, https://www-dbpia-co-kr.ezproxy.leidenuniv.nl/journal/detail?nodeId=T15096578.

Songdo is a prime example of this. The international business district located in Incheon largely comprises reclaimed land and was considered a sound location as a trial for extensive smart city ambitions. In its morphology, Songdo contrasts with the archetypal South Korean urban design, and draws inspiration from foreign concepts.[79] This is refined in the intricate relationships between citizens and the government. Since Songdo was largely uninhabited at the start, an approach to recruit "smart citizens"[80] resulted in a demographic typology that is orchestrated more directly than in Seoul. On a developmental level, foreign university campuses are housed in the area to attract intellectual capital. Consequentially, labor and manufacturing positions are increasingly disregarded in favor of automation, as fits into the modern smart city standard.[81] On a foundational level, Songdo is an anomaly regarding its focus on citizens as co-creators.

A common criticism, however, is that the theoretical inclusion of smart technologies does not translate directly into a desirable quality of life. In the end, Songdo has faced critiques for its lack of social awareness and integration of the human touch into its urban morphology, practices, and digital networks.[82] Besides, its rendering as an international business hub resulted in a great reliance on private investments to meet its monetary demands.[83] Nonetheless, the primary citizen participation network of Incheon is hosted entirely by the municipal government, foregoing this concern. It will become clear if the services offered by either city will diverge based on the size of its population[84] or the dependency on direct private international funding.[85] Then, its role in community building will be assessed based on the ladder of citizen participation.

[79] Jung In Kim, "Making cities global: the new city development of Songdo, Yujiapu and Lingang," *Planning Perspectives* 29, no. 3 (2014): 329-333.

[80] Michelle Selinger, and Tony Kim, "Smart City Needs Smart People: Songdo and Smart+ Connected Learning," in *Smart Cities as Democratic Ecologies* (London: Palgrave Macmillan UK, 2015), 159-160.

[81] Benedikt, "Valuable citizens," 26-29.

[82] Dominik Bartmanski et al., "Fabrication of space: The design of everyday life in South Korean Songdo," *Urban Studies* 60, no. 4 (2023): 674-676.

[83] Yoon-jung Kim, and Mack Joong Choi, "Contracting-out public-private partnerships in mega-scale developments: The case of New Songdo City in Korea," *Cities* 72 (2018): 46.

[84] Statistics Korea, "Population and Household," Statistics Korea, April 26, 2024, https://kostat.go.kr/anse/.

[85] Songdo IBD, "Partners," Songdo IBD, April 26, 2024, http://songdo.com/about.

4. Analysis

4.1 Seoul: Citizen Participation Portal

The Seoul Metropolitan Government (서울특별시) website is addressed first. Data collection will include publicly available figures from January 1st, 2024, up to May 1st, 2024. To systematically cover all characteristics of citizen participation in the digital setting, data will be presented in accordance with the revised ladder of citizen participation (table 2). These will be addressed starting from the collaboration category and ending at the section concerning information. In each subcategory, the data will be addressed in no specific order to steer away from the concern of bias. In the discussion, the findings will be put side by side based on its placement on the ladder. Hereafter, one case study is selected to provide a more comprehensive understanding.

In the collaboration category, various elements of direct engagement with the public are set forth. The separate subsection of the website titled 시민참여[86] (public participation) offers assorted services targeted directly at citizens. Subsection 1.1 includes digitally cast votes on existing policy proposals and initiatives. In this case, it appears that binding votes tend not to be cast through Seoul's online system, but rather in ballot form. However, direct opinion polling does occur digitally. Through the page called 온라인여론조사[87] (online poll), citizens may read through previous opinion poll results, as well as cast their vote on polls in progress. Since January 1st, 2024, five polls were conducted, with over 10.000 people engaging in the panels.[88] Urban landscaping and design inquiries are the vocal point of most polls, for which those who live in the area may feel more eager to participate.[89] However, many of the results are currently concealed. It does not become clear from the page if or when the reports are publicly disclosed.

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[86] Seoul Metropolitan Government, "시민참여," Seoul Metropolitan Government, May 2, 2024, https://www.seoul.go.kr/citizen/citizen.do.

[87] Seoul Metropolitan Government, "온라인여론조사," Seoul Metropolitan Government, May 2, 2024, https://research.seoul.go.kr/search/main.do.

[88] Seoul Metropolitan Government, "여론조사 결과," Seoul Metropolitan Government, May 2, 2024, https://research.seoul.go.kr/search/answerResult/list.do.

[89] Cramer, Mischa. Interview Conducted with Dr. Yoonai Han. April 26, 2024. Appendix 1: Question-Answer 9.

In the case of subsection 1.2, there is a portal designated to promote 공모전 (contests) which stimulates direct participation.[90] However, it should be stressed that most of these events pertain to spatial planning, sociocultural, and artistic endeavors. Their purpose can be understood to stimulate community building in the context of enhanced social capital. Here, the government takes on the role of a mediator, as much of these events are coordinated by (private) institutions and organizations through their own efforts. Regarding table 1.3, it becomes clear that ample room is provided for citizens to raise issues and proposals on a wide range of topics. Through the 상상대로 서울 (your imagined Seoul) portal, citizens can post their proposals and concerns. Only posts that reach 50 likes from fellow citizens within a 30-day period are moved to the relevant departments for a response.[91] Hereafter, it will be reviewed, and a public response is offered by set department about the possibilities of implanting the suggestion in its city planning.

Turning to the engagement category, we find the inherently Korean concept of 민원 to provide the main avenue for civil complaints. Through the 시민감사옴부즈만위원회 (ombudsman) page, citizens can register an official complaint. In accordance with the law, these are addressed within a week.[92] Since the portal deals with already existing issues and concerns, it does not fit within the collaboration category, as there is no collaborative involvement prior to the case. In turn, representation is outwardly expressed by the city. Accessing the 서울시민기자[93] (Seoul citizen reporter) page allows Seoul's citizens to function as reporters on issues that are underexplored in municipal, or nationwide broadcasting. This could foster an environment that stimulates diversity of thought and inclusion. In turn, it provides a platform on which citizens can actively participate in both mundane and meaningful conversations, increasing connectivity.

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[90] Seoul Metropolitan Government, "공모전," Seoul Metropolitan Government, May 2, 2024, https://mediahub.seoul.go.kr/competition/competitionList.do.

[91] Seoul Metropolitan Government, "상상대로 서울," Seoul Metropolitan Government, May 2, 2024, https://idea.seoul.go.kr/front/index.do.

[92] Seoul Metropolitan Government, "시민감사옴부즈만위원회," Seoul Metropolitan Government, May 2, 2024, https://ombudsman.seoul.go.kr/front/user/main.do.

[93] Seoul Metropolitan Government, "서울시민기자," Seoul Metropolitan Government, May 2, 2024, https://mediahub.seoul.go.kr/citizen/citizenMain.do.

In the final bracket, informatization is addressed as a quintessential goal of e-governments. It becomes apparent that Seoul's Metropolitan Government website emphasizes transparency as an inherent e-governance value. Therefore, on issue 3.1, there is a restricted amount of feedback opportunities provided on various web pages. Significantly, on the topic of citizen proposed measures, there is an ability to like or dislike suggestions. Based on such results, the government purports to discuss it with relevant stakeholders. Still, on the issue of open data and information, there is a lack of feedback opportunities on their website. In the 고시공고[94] (public notice) profile, public notice updates are displayed based on their department. These are often short bulletins with which you cannot further engage. The possibility of sharing news bulletins on various social media platform exists, through which relevant information can be more easily discovered.

On a critical note, the Seoul Metropolitan Government website includes a vast number of subsections, affiliated websites, and organizations, as well as close-ended departments that are only accessible for registered users. To deal with this situation, only the primary 시민참여 (citizen participation) portal and its connected departments have been addressed. Since it is this subsection that was established with the specific purpose of increasing citizen involvement in the urban political landscape, it does not produce a wholistic approach to citizen participation. In conclusion, collaboration is encouraged both in the preliminary stages of policy drafting, as well as in its implementation. However, the top-down approach to most policies remains a critical trait of urban e-governance in Seoul. On the issue of engagement, Seoul's Municipal Government website provides unique methods of expressing dissatisfaction among its citizens. Besides, representation of daily life may build a sense of community and mutual understanding between citizens and government alike.[95] On information, the baseline of policy notices is met, but further forms of engagement are reduced to the ability of sharing news and notice bulletins.

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[94] Seoul Metropolitan Government, "고시공고," Seoul Metropolitan Government, May 2, 2024, https://www.seoul.go.kr/news/news_notice.do#list/1.
[95] Robert J. Chaskin, and Ali Abunimah, "A view from the city: Local government perspectives on neighborhood-based governance in community-building initiatives," *Journal of Urban Affairs* 21, no. 1 (1999): 57-60.

4.2 Case: Haneul Park Utilization

Drawing on the preliminary results of the digital citizen participation platform, it becomes clear that various openings are facilitated to increase the communication between government and governed. Nonetheless, it is not obvious what constitutes the results of these inquiries. To be cognizant of this, a case study on the 시민제안 (citizen proposal) page will further develop our understanding of its effectiveness in increasing social capital. Inherent to social capital is the community-centered approach to governance. In this case, the perception of empathy informs the likeliness of citizens to feel empowered.[96] This is among the quintessential elements that improve citizen-centricity and community-based governance, and thus enhance social capital. Online government avenues can present a medium through which this process is carried out. To clarify this, a representative case from the citizen proposal page is laid out in more detail.

On April 6, 2024, a post was published on the utilization of Haneul Park (Sky Park) in Mapo-gu, Soeul.[97] The citizen author expressed their concern over the limited utilization and convenience of the area. In particular, the absence of a staircase on the southside of the park is critiqued. Another passageway between Haneul Park and Hangang Park is also addressed. The author gathered many signatures and expressed this community concern to the government directly. An official response was issued by the Park Operation Department on April 29, 2024. They aimed to start a preliminary study on the possibility of constructing the new staircase. However, the critical element is not only an affirming response to the concern, but instead a sense of empowerment that is conveyed to the citizen in question. Critically, most of the suggestions are not acted upon directly, and are often considered without further clarification. Nonetheless, this is a prime example of some of the methods used to strengthen social capital.

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[96] Anirudh Krishna, "Social Capital, Community Driven Development, and Empowerment: A short note on concepts and operations," *World Bank Working Paper* 33077 (2003): 4.

[97] Seoul Metropolitan Government, "시민제안," Seoul Metropolitan Government, June 13, 2024, https://idea.seoul.go.kr/front/freeSuggest/view.do?sn=195825&searchUseYn=Y&searchCondition=&searchCondition2=1&searchCondition3=&searchSYear=&searchKeyword=&sRegDateS=&sRegDateE=&sKind=M&pageIndex=40&sSuggest_divi=&suggestask_sn=&sDiscussionSn=&sPracticeSn=.

4.3 Incheon: Citizen Participation Portal

Considering the results of the Seoul Metropolitan Government website we now turn to Incheon. Like Seoul, the Incheon Metropolitan City is not part of one of South Korea's main provinces. Henceforth, the Incheon Metropolitan City webpage will be considered for the research. In this case, the existence of a specific 시민참여[98] (citizen participation) page suggests that both Soeul and Incheon's e-governments intend to provide citizens direct access to various services. Since the foundation of both citizen participation portals is akin, these cities in specific are viable for a critical comparison based on the revised framework (table 2). However, it will be interesting to discover if Songdo is addressed directly, or whether such a distinction is lacking in this case. The approach to Incheon's data will be like that of Seoul, in that the revised framework will be addressed in chronological order. Then, in chapter five, a critical discussion of the detailed structures and implications will inform the research question as presented in the first chapter.

On collaboration, direct binding votes tend to be executed in line with the general South Korean policy of in-person ballots. A possible explanation for this hesitancy to engage more in-depth with e-voting is the increased risk of fraud and voter manipulation.[99] Still, on a more general level, voters may express their views on policy proposals via the 설문조사 (poll) system. Since January 1st, 2024, nine polls have been conducted.[100] Unlike Seoul's online polling system, most of the results from Incheon have been published, and are accessible for all visitors. It becomes clear that the content of polling varies significantly, with some addressing the issue of satisfaction, while others directly vote on issues of naming programs or developmental plans. However, none of the ninety represented polls include the term Songdo, which supports the notion that although Songdo is highlighted among various private partners, there is yet to be a sweeping approach that connects Songdo's citizens specifically through digital polling systems.

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[98] Incheon Metropolitan City, "시민참여," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/IC020301.
[99] Hyeon-Woo Lee, "Political Implications of E-voting in Korea," *International Journal of Korean Studies* 9, no. 2 (2015): 96-104.
[100] Incheon Metropolitan City, "설문조사," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/cool/COOL070002.

As for point 1.2, an avenue for open discourse is provided primarily through the establishment of the 스마트도시 리빙랩 (smart city living lab).[101] The lab was organized by the city government to challenge a criticism of smart city governance, namely the top-down policy narrative. In turn, over 50 percent of the members constitute local citizens, with further expertise provided by ICT experts, activists, and the general public. This is a starkly different approach from that of Seoul, where the government functions mainly as a mediator, rather than providing these platforms themselves. Aside from this, the presence of 공모전 (contests) further increases engagement. Here, Songdo is not addressed as a vocal point of smart city governance. On issue 1.3, a near exact suggestion system is introduced on the 열린 시장실 (open mayor's office).[102] There are no relevant deviations from the arrangements provided by the Seoul government. Feedback can be provided through likes and dislikes, but in this case also through the formulation of comments.

The research objectives pertaining to boxes 2.1 and 2.2 are to consider the availability of engagement with the government through its digital platform. The results are as follows: on communication, 민원 (complaints) can be registered through the 민원상담 (consultation on civil complaints) website.[103] Unlike Seoul, there is a lack of visual representation of everyday life in Incheon, especially in the case of Songdo. Instead, anecdotes of citizen's experiences are in the form of short stories that can be uploaded through the 칭찬합니다 (praise) page.[104] About two posts are uploaded each day, and they must reflect specific positive experiences with other public workers and individuals. Hence, according to the current guidelines on the website, representation is highly selective, yet offers an optimistic approach to the human connection, which is common in smart city discourse. Transparency in this section is also more pronounced.

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[101] Incheon Metropolitan City, "스마트도시 리빙랩," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/IC020401.

[102] Incheon Metropolitan City, "열린 시장실," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/cool/index.

[103] Incheon Metropolitan City, "민원상담," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/IC030201.

[104] Incheon Metropolitan City, "칭찬합니다," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/IC020505.

Open data and information are addressed extensively throughout the citizen participation portal and beyond. In particular, the inclusion of marginalized communities, such as the disabled, within their ICT strategy is reflected repeatedly. Through customized municipal information notifications, regular updates on news bulletins, housing, and twelve other topics can be sent automatically once every day via the 맞춤형 시정정보 (customized municipal information) platform.[105] Importantly, further feedback may not be provided on the short bulletins. Still, the condition of customization adds to the inherently mutual relationship between government and the governed. Moreover, networking as an intrinsic part of smart city connectivity is put forth by means of the 중간지원조직 네트워크 (intermediate support organization) network.[106] Through the employment of a consultative body, interconnectedness between government, the private sector, and citizens is promoted. This includes support centers, volunteer centers, and education centers. Critically, there is no clear feedback provided on the implementation of their initiatives.

In conclusion, three guiding principles underline the user-experience of the citizen participation portal from Incheon Municipal City. One, the issue of mutual understanding is addressed by means of opening the door to suggestions from local communities. Here, there is no clear path to concrete policy changes, but direct correspondence could present a start to this. Secondly, transparency by means of open data and information allows citizens to understand the political body more in-depth and allows them to challenge political implications of policies. At last, diversity and inclusion has become part and parcel of e-governance around the globe.[107] In the online discourse of Incheon's prime government website, the topic of disabilities is raised regularly. Further research must be conducted to confidently affirm the effectiveness of such policies. In this case, interviews with disabled individuals may shed light on the issues at hand.

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[105] Incheon Metropolitan City, "맞춤형 시정정보," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/IC021001.

[106] Incheon Metropolitan City, "중간지원조직 네트워," Incheon Metropolitan City, May 3, 2024, https://www.incheon.go.kr/IC020602.

[107] Philip M. Napoli, and Kari Karppinen, "Translating diversity to Internet governance," *First Monday* 18, no. 12 (2013): 1.

4.4 Case: Northern Culture and Arts Center

Incheon's citizen participation portal serves as one of the avenues for achieving greater social capital amongst its population. Community building and empowerment are objectives at the forefront of this mission. To clarify the results, a case study on one citizen proposal is addressed. The purpose is twofold. On the hand, the previous objectives are addressed in terms of practical implications, and on the other hand, a comparison with Seoul's case will be briefly discussed. In the case of Incheon's 열린 시장실 (open mayor's office), suggestions are only accessible for 30 days, after which they are archived in a closed environment. So, a more recent case study will be considered. On May 29, 2024, a citizen of Incheon discussed the Northern Culture and Arts Center. In short, much of Incheon's cultural establishments are in the southern districts of the city. In the recently established northern neighborhoods, cultural capital is lacking. So, the local government proposed an initiative to build a new cultural center in the northern region.[108]

The citizen stressed the relevance of a cultural center in this area, due to the previously restricted developmental landscape of Gyeyang-gu.[109] The post received nearly a thousand likes and over a hundred comments. Much of these expressed the desire for socio-cultural spaces as part of daily life. This request is mostly based on its beneficial elements for the local economy. Additional arguments pertain to the entertainment and education purposes for younger citizens. On a fundamental level, being able to receive support through digital participation is a practical implication in itself, and adds to a sense of empowerment and virtue. Nonetheless, in contrast to Seoul, there is no clear path to policy consideration mentioned on the suggestion website. So, in the case of the Northern Culture and Arts Center, it does not become clear in what ways the feedback is considered as it pertains to the development of cultural establishments in the region.

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[108] Hoyŏng Chang, "kyeyanggu, pukpumunyehoegwan t'rkyeyangaraont' yuch'it'pt'pt'p t'ŭkchŏngjiyŏk myŏngshi pip'annawa," [Gyeyang-gu, Northern Arts Center attracts 'Gyeyang Araon'... criticized for specifying specific area] *Incheon Daily*, June 17, 2024, https://www.incheontoday.com/news/articleView.html?idxno=248246.
[109] Incheon Metropolitan City, "열린 시장실," Incheon Metropolitan City, June 19, 2024, https://www.incheon.go.kr/cool/COOL010501/view?petitSn=2048289.

5. Discussion

The objective of this research is to understand and structurally analyze how digital platforms inform civic participation's role in building social capital within the smart city. In this case, two smart cities were selected based on their location, historical developments, and digital platforms. Data was sampled from the respective websites, taking into account only the designated portals addressing citizen participation in e-governance. To add structure to its interpretation, a revised framework on citizen participation forms the guideline for data collection and classification. So, in this chapter, the results are relayed visually, and a critical analysis will provide an in-depth understanding of the implications for achieving a state-of-the-art citizen-centric smart city. In its essence, Seoul and Incheon approach the issue of citizen participation complementary. As a matter of fact, it is not uncommon in urban politics to employ portals designated to increase understanding and promote co-creation initiatives in a less hierarchical form or composition.[110]

Even though the provision of these contents allows citizens to participate more actively, the findings highlight the limitations of certain practices in achieving true co-creation. To start, the integration of online voting and a direct adoption of the results are scarce both quantitively and qualitatively. The results show that no significant influence can be indicated in either Seoul or Incheon's digital platform. Online polls are among the most direct forms of collaboration to be found on the respective pages. Here, a thorough response is not provided through open data. In addition, in Seoul only five polls were registered, whereas Incheon's polling data resulted in nine findings, each presenting broad topics, with little room for nuance and input. Hence, in contrast to the foundation of e-participation, direct co-creation in the collaborative category is limited to public polling and surveys, whereas binding referendums do not occur in the present.

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[110] Hui-Jeong Han et al., "konggongdeit'ŏp'ot'ŏl iyongja sŏbisŭ hyŏnhwang punsŏk mit kaesŏnbangan - shiminch'amyŏhyŏng teit'ŏp'ot'ŏrŭl chungshimŭro," [Analysis of Current Status and Improvement Plans of the User Service in Open Data Portal - Focusing on Citizen Participation Data Portal] *Journal of Korean Library and Information Science Society* 51, no. 1 (2020): 261-263.

This speaks to one of the fundamental critiques that urban politics, and e-governance is specific, relies on a top-down appeal which governed political philosophy since democratization.[111] On a critical note, top-down and bottom-up participation are often coined to dismiss or stimulate certain governance stratagems. As becomes clear from the results of this study, contextualizing through intricate details reveals a more complex dynamic, and is inherently ambiguous.[112] Still, an avenue is provided to directly respond to, and criticize, contemporary smart city policies through posts that are visible for all users. In Seoul, an official response is guaranteed according to the requirement of 50 likes within a 30-day period. A collective effort therefore functions as a catalyst for discourse, to the dismay of underrepresented individuals. In turn, this represents the first major roadblock to active citizen engagement in the e-governance platform of Seoul.

In contrast, on the issue of networking and connectivity, results show that both cities actively provide avenues to realize these objectives. In Seoul, contests are regularly promoted to increase the participatory value of its citizens. In Incheon, the quantity of offers is similar. In fact, regardless of the extent of these projects, the availability alone adds to a sense of voice among the population, which is fundamental in balancing shortcomings on the topic of direct influence.[113] However, the top-down initiative is solely to provide the know-how on available programs, which does not take away from the responsibility of citizens to further engage and participate in set goals. This presents a momentous concern in the case of Songdo, as this city is part of the Incheon Metropolitan City. As a result, the findings suggest that neither direct or indirect participatory channels consider the specific living conditions and desires of Songdo residents. This results in a lack of inclusivity among those living in certain areas or districts. Policy makers may address region-specific needs more actively to combat concerns like these.

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[111] Yejin Yoo, and Seungbee Choi, "Effects of Top-Down Balanced Development Strategies on Regional Balance: Evidence from Public Big Data in Korea," *Sustainability* 14, no. 23 (2022): 1.

[112] Ryan Burns, and Preston Welker, "Interstitiality in the smart city: More than top-down and bottom-up smartness," *Urban Studies* 60, no. 2 (2023): 308-314.

[113] Tooran Alizadeh, Somwrita Sarkar, and Sandy Burgoyne, "Capturing citizen voice online: Enabling smart participatory local government," *Cities* 95 (2019): 2.

At last, open data and information are considered fundamental to democratic governance. This is no less true in the digital platform setting. In this case, both Seoul and Incheon provide ample updates on policy proposals, government funding, as well as maintenance notices. Part of the discourse on democratic digitization, open data is considered a primary resource in achieving high levels of reliability and trust in government.[114] It should therefore come to not surprise that these are core values expressed in the visions of most contemporary smart cities. The results show that Seoul and Incheon respectively adhere to these aspirations in their data availability. This concludes the final aspect of e-governance as discussed in table 2. If employed correctly, this foundation on citizen participation could aid in the process of citizen empowerment, which in turn encourages engagement in urban political life. Community building as a pillar of modern urban society is therefore the catalyst to achieving an effective urban governance apparatus.[115]

Below, a recapitulation of the collected data showcases some unique opportunities and challenges that each city encounters in their respective case study. At large, these are examples of parallel developments in urban governance and citizen participation. So, many of these points may be considered by policy makers to develop a more comprehensive approach. In chapter six, the limitations of the studies will be addressed further so signify the shortcomings and restraints of this research. It must be noted that the development of e-governance platforms is largely dependent on the availability of technology, financing, as well as the contemporary state of national politics. Research must therefore be conducted repeatedly to present an up-to-date analysis. Since this research was based primarily on the data accessible to all online users, it would be beneficial to conduct interviews with Korean nationals for whom these platforms have made a significant impact. Their perspectives can deepen the analysis of the current case studies.

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[114] Sehl Mellouli, Luis F. Luna-Reyes, and Jing Zhang, "Smart government, citizen participation and open data," *Information Polity* 19, no. 1-2 (2014): 1-3.

[115] Michael Haus, and Jan Erling Klausen, "Urban leadership and community involvement: Ingredients for good governance?," *Urban Affairs Review* 47, no. 2 (2011): 256-262.

Table 3 | Challenges and Opportunities in Seoul and Incheon's e-Governance Approach

	Seoul: Haneul Park	Incheon: Culture Center
Collaboration	Online polling could be conducted in response to citizen's suggestions. In the case of binary decisions, a binding referendum could aid in the development of citizen-centricity. It is crucial to consider the downsides of such plebiscite. These include the underrepresentation of certain marginalized communities and a lack of know-how on certain topics.	The citizen proposal in Incheon is an extension of the ongoing debate on a new Culture and Arts Center. It clearly outlines the public interest in the issue. So, local governments could set up additional discourse groups to discuss the pros and cons of establishing this cultural center. Yet, it is the nature of politics that a decision often does not delight all.
Engagement	If financially achievable, the citizen suggestion portal could further enhance the responsiveness of its employees. By decreasing the fifty-vote threshold, more opinions can be taken into consideration. In turn, this could lead to oversaturation of input by citizens, therefore making official responses less well thought-out or insufficiently comprehensive	On engagement, Incheon's portal is less extensive. Suggestions are laid out in a similar fashion as Seoul but are stored up to only thirty days. It could be effective to extend this to a larger timeframe. This way issues that are less acute can be considered by citizens who are not frequently online and may therefore miss out on some proposals and suggestions.
Information	The official response to the citizen proposal clearly laid out what the intended actions on the government level encompasses. Nonetheless, it concludes at a singular response. The effectiveness of this method could be increased by allowing further discourse and participation to take place during the orientation, development, and execution phase.	Unlike in Seoul's case study, there is no clear path to concrete policy or process changes. Since no official response is indicated in most posts, it is unclear how the government navigates these procedures. Adding an extensive roadmap describing the purpose and examples of citizen suggestions could then encourage added participation by the citizens.

6. Limitations

The foundation of this research inquiry relies on empirical evidence to substantiate the proposed classification. Challenges in this subject matter have given rise to certain limitations and implications. In order to accommodate upcoming research, a systematic overview of the issues will be addressed. To start, Arnstein's framework was adjusted to fit contemporary standards. Even though a myriad of topics were considered during its revision, the multifactorial nature of demarcated classifications informs the possibility of generalizations and underrepresentation. Future studies may adjust their specified focus accordingly, to challenge this shortcoming. Still, the results do inform us of current trends in e-governance pertaining to citizen participation.

Furthermore, two case studies were conducted conducive to the unique nature of Seoul and Incheon's approach to governance. Both cities were researched thoroughly and repeatedly. However, due to the presence of many pages and sub-pages within the networks, it is strenuous to include each topic in its context. This required a selection of the relevant issues pertaining to the research question but left out some details that were considered peripheral. These may be explored in-depth during a more substantial research inquiry. Besides, this research sought to address e-governance in specific. Therefore, the results should be interpreted as such since the participatory value of citizens reaches far beyond digital platforms and e-governance by itself.

Ultimately, the research was conducted empirically, yet addresses results theoretically. Due to the academic nature of the classification, the results do not reflect a value-based analysis, and solely aim to understand the role public engagement plays in the effects of governance. So, depending on the objectives set by a governmental body, an approach which does not include citizen participation to the extent mentioned may be favored over Arnstein's espoused ideals. In the end, the reliability and accuracy of the results are secure, but its interpretation is based on certain assumptions and predictions. Henceforth, it would be especially intriguing to discuss the results with policy makers and citizens of the designated areas to perceive their perspectives.

Conclusion

Increased digitalization of urban governments has given rise to rigorous scholarly debates on the topic of citizen participation, top-down political structures, as well as the challenges and opportunities that arise through modern technological progress. So, as theory and practice develop, case analyses form the basis for a thorough understanding of the systems that underline e-governance. In the case of both Seoul and Incheon, its primary digital platforms have been underexplored in academic literature. To challenge this deficiency, among others, empirical evidence constitutes the foundation of the critical comparison between the cities. Accompanied by a revised framework on citizen engagement, the data was structurally collected and presented.

This data collection informs us of the contemporary state of e-governance in Seoul and Incheon. It becomes clear that citizens as pivotal actors within urban politics are continuously revisited by city governments. Still, direct co-creation as a means to this end is lacking in both of the case studies. There is an inclination to pursue the traditional forms of politics in its top-down course of action. Nonetheless, a clear effort to increase online connectivity, and outwardly address both issues and stories of the urban population, is regarded as successful in its intended purposes. Consequently, there is evidence to support the notion that e-governments are now progressively aware and willing to engage with citizens to advance modern urban proceedings.

Importantly, concluding direct causation of citizen participation for the effectiveness of urban governance remains non-viable. It will require more in-depth research to thoroughly understand the consequences of citizen participation for all the actors involved. The continuous development of urban e-governance further calls for regular revisions in theory and practice. In conclusion, as South Korean cities continue to propagate citizen participation as a fundamental factor in shaping the modern smart city, it is up to its citizens to address the problematics of this approach in their daily lives. Only then will we move past the contingencies that idealize our understanding of what governance should be. In the end, it remains ambiguous to conclude.

Appendices

Appendix 1: Interview Dr. Yoonai Han

Interviewer: Mischa Cramer (M)
Interviewee: Dr. Yoonai Han (Y)
Location: LU University Library
Date: Friday, 26 April 2024

Note: The semi-structured interview included ten questions about South Korea's urban culture. In order to accommodate the interviewee, and focus on the applicable understanding of her research, some of the questions were not addressed thoroughly during the interview. Since the interview lasted nearly 60 minutes, the transcript has been summarized in accordance with its relevance for the main arguments in the essay. The three dots represent all of the omitted phrases.

1. M: Could you briefly tell me about your background, and specifically your PhD research?

Y: My areas of expertise are urban studies and digital studies. Especially, I am interested in what people understand and how people practice and perceive digital and smart technologies in their everyday lives… For my PhD, I talked about short-term workers and platform workers in South Korea, and how their way of living affects their way of organizing life goals or use of time. So, the intersection between the digital and everyday life was my focus… I have been trained as a human geographer, so I conduct a lot of interviews, observations, and mapping too.

2. M: How do compressed growth and fast urbanism define South Korea's urban development?

Y: Since the Korean war, South Korea established a lot of cities. Economically, South Korea was still lacking up until the 1960s. Then, a lot of people moved to Seoul for better opportunities. So, cities grew in population and the government felt the need to build up more cities. This was achieved in a really compressed manner… Generally, this was also in a very top-down fashion.

3. M: How does a top-down approach to urban planning affect underrepresented individuals?

Y: Underrepresentation is one of the side-effects of this top-down approach. People do not feel like they are part of the process of making the city, even though it affects everyone's daily lives. When this is achieved in a top-down manner, the government will provide limited housing, but this still dominates the urban politics. In general, people tend to just follow this approach… It is not just the physical or built environment, but it becomes part of the thought process of urban society. A social impact of compressed urbanization is therefore its non-collective viewpoint…

4. M: Are you aware of any initiatives in South Korea that challenge this top-down approach?

Y: *Maeul mandeulgi* (village making) was introduced by Park Won-soon. One of his biggest contributions as the Seoul mayor was this project, where the city government supported small village-level participation… People can apply for a grant, and propose ideas, such as a childcare center. These were not large re-generation projects, but rather small improvements to daily life… If the city government agreed with the shape of the idea, they would provide financial and institutional support so that this could occur… However, in South Korea, once the mayor changes, projects like *maeul mandeulgi* could be discontinued… Hence, it is definitely insecure.

5. M: Do you have a definition of the smart city, in juxtaposition with the non-smart city?

Y: Nobody really knows what the smart city entails. It is really technocentric. Most of the articles I read said this term provides a way to market the smart city. There are of course a lot of technologies involved, such as transportation and recycling, but beyond that level it becomes unclear what constitutes the smart city… Songdo is essentially a smart city, but nobody calls this a smart city in Korean… Songdo was built from scratch and people are slowly moving in. Infrastructure is moving at a slow pace as well, so the first people to relocate may have felt uncomfortable since there is a lot of uninhabited spaces and infrastructures… I think people are likely to move with a sense of waiting for the smart city to fulfill its true advertised potential…

6. M: Do you think smart city discourse is rather limited in scope or is there a lot of engagement?

Y: I found that most of the conversations about "smartness" were from journal articles and government websites, but not much in everyday life… Still, there is some engagement on more practical issues. There are some government websites where you can raise an issue. If you raise a certain number of signatures the government has to take the issue into consideration. That kind of signature would then go on and circulate information on social media. This is another platform through which issues are addressed about democracy and technology, which is typical in the smart city context… Again, the term smart city is not reproduced in daily conversations…

7. M: How does the discourse around automation inform one of the starkest smart city critiques?

Y: I am also very interested in automation in the development of the smart city. For example, one of my interviewees for the PhD project was doing job training to become a cargo truck driver. A year later, I saw this newspaper about automating truck driving… Automation is happening faster than people can learn new skills… Similar to this issue is the toll gate issue, where contactless payments replaced physical workers. This is effective in terms of labor efficiency, but it was a huge controversy because a lot of people were fired because of this… Hence, automation as part of the smart city is a topic addressed more broadly in urban societies.

8. M: How does the idea of the smart citizen relate to urban development in Seoul and Songdo?

Y: There are government subsidized job transition programs in South Korea. They want you to be especially smart in this phase of your career, which means you are encouraged to learn about modern technologies, such as AI and machine learning… So, they kind of try to channel you from the previously existing industries to the newer smart city services… Hence, there is limited engagement to help its citizens in this transitional time… It could be an interesting issue to address in further research as well, since automation and labor issues are inherently tied to new smart technologies and the replacement of current physical workers with automated alternatives.

9. M: Could you tell me a little bit about the culture of social protests in South Korean society?

Y: South Koreans tend to speak out when they disagree with something. The thing is, is that a lot of political mobilizations or social movements are expressed in terms of territory. For example, to reconstruct this apartment or not, to evict this tenant or not, or to conserve or preserve this green space or not. Therefore, it expressed mainly in terms of territory... In turn, usually only the residents or those with direct interest are involved in the urban politics or decision making of urban governments. If you do not feel rooted in the community, you are unlikely to participate. So, these territorial politics speak to those who can afford to stay there… However, I do not think that there has been any big alternative approach than this territorial focus in urban political engagement. There are some theoretical debates about the right to the city, in which all citizens are encouraged to actively participate… In daily life, it is difficult to implement such a wide approach though. Especially in South Korea, a lot of people are too busy working, so they do not need have the time or mental space to think about these issues as a collective whole… Perhaps KakaoTalk[116] did provide an avenue for more broad conversations.

10. M: Do you think there are long-term solutions that increase public participation in the city?

Y: I think they are changing gradually to the positive sides, in that the government uses a lot of social media to let its citizens know that the channel is open, and to hear their opinion. Through this outreach they make governance look less hierarchical. Actually, the technology has existed for a long time… You can express your opinion through social media and government websites. Still, in people's mind, citizen participation has not increased to the point that people feel like their daily-life issues can be raised and dealt with thoroughly… Together with a culture in which top-down policies tend to be accepted quite swiftly, engagement is not entirely realized. Perhaps showing the population that the government is open to input is valuable in and of itself.

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[116] KakaoTalk is a South Korean mobile messaging app that also hosts limited debates about various city issues.

Appendix 2: Seoul: Citizen Participation Portal

Appendix 3: Incheon: Citizen Participation Portal

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