THE EVOLUTION, DYNAMICS AND ASSESSMENT OF THE GLOBALLY
TOP RANKED URBAN E-GOVERNANCE SYSTEM:
A CASE STUDY OF THE SEOUL METROPOLITAN GOVERNMENT'S
E-SEOUL

by
Woonghee Son

A dissertation submitted to the Faculty of the University of Delaware in
partial fulfillment of the requirements for the degree of Doctor of Philosophy in the
Urban Affairs and Public Policy

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My wife Seonkyeong, for her endurance, wisdom, and strength over past few years. My beloved daughter Seungah has been the source of my confidence and courage.

My parents, for their sacrifice and constant encouragement. They kept me strong at the harsh moment of my life.

Yoon family, as my aunt, uncle, and cousin, who gave me their endless support and encouragement throughout my study in the U.S.
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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>DIP</td>
<td>Department of Information and Planning, Seoul Metropolitan Government</td>
</tr>
<tr>
<td>E-SEOUl</td>
<td>E-government Website, Seoul Metropolitan Government</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>ING</td>
<td>Imagination Netizen Group</td>
</tr>
<tr>
<td>KIPA</td>
<td>Korea Institute for Public Administration</td>
</tr>
<tr>
<td>KISDI</td>
<td>Korea Information Society Development Institute</td>
</tr>
<tr>
<td>NIA</td>
<td>National Information Agency, Korean Government</td>
</tr>
<tr>
<td>NR1</td>
<td>Network Readiness Index</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
</tr>
<tr>
<td>SCCDP</td>
<td>Seoul City Center Development Plan</td>
</tr>
<tr>
<td>SDI</td>
<td>Seoul Development Institute</td>
</tr>
<tr>
<td>SMC</td>
<td>Seoul Metropolitan Council, Seoul Metropolitan Government</td>
</tr>
<tr>
<td>SMG</td>
<td>Seoul Metropolitan Government</td>
</tr>
<tr>
<td>SNS</td>
<td>Social Network Service</td>
</tr>
<tr>
<td>TCS</td>
<td>Team of Citizen Suggestion, Seoul Metropolitan Government</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>WEEC</td>
<td>World E-governance Evaluation Committee</td>
</tr>
<tr>
<td>WEF</td>
<td>World Economic Forum</td>
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</table>
ABSTRACT

Information and Communication Technology (ICT) based Internet linkages exist between governments and citizens both in formal institutional structures and in more informal systems based on social media. In formal terms, e-governance, have expanded across the world in a variety of forms and has emerged as an important medium for government and administrative reform. It has developed dramatically in the early 21st century by providing real time information and services and with dimensions aimed at enhancing citizen participation (OECD 2008; Kim 2004; West 2001). This research focuses on a formal e-governance system, e-Seoul, that was established by the Seoul Metropolitan Government in Korea.

E-Seoul has been evaluated as the world’s top urban e-governance system by the international organizations that have done such rankings. These ratings have been based on assessments of information provision, service quality, webpage contents, system security, and participation quality in general. E-Seoul has been judged to be at the top in almost all of them. However, there is limited research on evolution of formal e-governance systems in major urban areas and how they fit into the existing political and power structures of such places, in general, and, in particular, in relation to e-Seoul.

In consequence, this study undertakes a case study of e-Seoul in terms of its evolution and operational dynamics from the late 1990s to 2012, a time span for which the most systematic data are accessible and to 2014 when data are available. The study initially looks at the specific organizational features of e-Seoul, its
responses to changes in ICT, characterizes the phases of its development and discusses its fit into the existing political environment and power structure. Data is then presented and analyzed concerning major dimensions of e-Seoul’s information and services provided to citizens, their use patterns and a limited amount of survey data on citizen evaluation. Next, particular attention is paid to several features of e-Seoul intended to gain citizen views on issues and facilitate communication with the mayor on problem matters and to the one dimension, the “Imagination Board,” that is intended to directly involve citizens participation in policy making. In the final section of the study, conclusions are presented and further research proposed.

E-Seoul’s information and services are substantial, have grown more extensive and changed with ICT innovations and appear to fit the international ranking of these dimensions. In contrast, however, citizen influence and participation through e-Seoul is very limited and designed and administered in ways that reflect rather than change the existing power structure and political environment. Further, the mayors of the SMG, major political figures in Korea, have played a significant role in the design and evolution of e-Seoul to foster the role of the chief executive in directly communicating with citizens and responding to their requests and complaints. These findings raise questions about e-Seoul’s internationally high ranking in citizen participation as does the fact that a relatively small percentage of the total population of the area actually uses e-Seoul at all.

The findings of the case study suggest several directions for future research concerning formal institutional systems of e-governance. One is generating more empirical data on citizen use of various dimensions of e-Seoul and more survey data about their assessments of them. Of particular interest would be a comparison of
citizen use of social media to exercise political influence in SMG policies along with more attention to the role of existing power holders to the development and political dynamics of e-governance. In turn, research on these questions in other major urban areas and their comparison would be obvious further steps.
Chapter 1

INTRODUCTION

1.1 Overview of the Research

E-governance has expanded across the world in the forms of e-government, e-participation, and e-democracy, and it has emerged as an important medium for government and administrative reform. It developed dramatically with timely responses and low costs in delivering quality service and information (OECD 2008; West 2001). The term e-governance has a much more comprehensive meaning than e-government (Jung & Myeong 2005). It can be used to include and empower citizens. Its purpose is to enhance governments by utilizing Information and Communication Technology (ICT) at various levels of government and in the private sector (Holmes 2001; Srivastava & Teo 2004). E-governance services and information offer a transformative platform for the public sphere (UNDESA & ASPA 2008). These services leverage social communication by taking citizens' opinions and suggestions.

E-governance systems have spread to urban and metropolitan regions throughout the world. These regions¹ have structured systems that enhance governance through initiatives (Son 2005) that provide information and public

¹The world’s major urban regions were responsible for more than 70% of Internet traffic in 2007 (UNDP 2008).
services through access to ICT services and direct citizen involvement in governmental agencies (Rethemeyer, 2006; Westcott, 2007).

Korea is among the top-ranked nations in terms of ICT implementation and e-governance evaluations. Korea has placed within the top 10 of global nations in the National Readiness Index (NRI) of World Economic Forum (WEF) evaluation of 2010-2011. The NRI report (2011) declared that Korea has the world’s best e-government system and ICT infrastructure (Lin & Hsieh, 2012).

The Seoul Metropolitan Government (SMG) has been a leader in utilizing e-governance initiatives. Seoul has been highly ranked in global e-governance evaluations by the United Nations (UN), World E-governance Evaluation Committee (WEEC), and the NRI. WEEC’s evaluation ranks the world’s top 100 cities. The e-government assessment of WEEC ranked the e-Seoul system as the world’s best in 2003, 2005, 2007, 2009, 2011, and 2013. Seoul’s e-citizen participatory service was selected for the UN Public Award in 2009.

Simultaneously, much of the recent attention and research on governance and the Internet has been directed toward citizen use of social media to protest or topple existing governments. The literature on “The Arab Spring” and “President Roh” are major examples. “The Arab Spring” was revolutionary protest among Arab peoples in December 2010 that ran across the Middle East and North Africa (Anderson 2011). Internet activism is the use of electronic communication technologies such as social media to spread and share relevant issues. Informal participation of people both offline and online made the Arab region a revolutionary space, finally giving citizens the chance to express their perspectives on government and politics via the Internet. Scholars (Lotan, Graeff, Ananny, Gaffney, & Pearce
2011) pointed out Social Network Services (SNS) played a significant role in the success of “The Arab Spring.” The protest could be shared around the world via SNS immediately, leading to support from citizens in other nations as well. The case of “President Roh” was in Korea in 2003. After his impeachment by the Korean Assembly, several million people shared and interacted with others about their own opinions via social media. The Internet became an arena for debate among Korean citizens. Over the course of a month, millions of Koreans held candlelight vigils every day in addition to their voluntary Internet activism in support of Roh. As a result, the Korean people changed the power structure of the National Assembly in time for the election, and President Roh was able to come back to his position (Chaibong 2008).

Internet activism through the use of social media is regarded as a major participatory route for social movements and governance (Earl, Kimport, Prieto, Rush, & Reynoso, 2010). However, it is an informal route, without governmental communication and official paths between people. Currently, citizens initiate and utilize social media through both formal and informal dimensions. The example of formal participation is through e-governance initiatives. This is based on institutional and formal participation in governmental issues and policymaking processes.

Due to its formal, participatory nature, e-governance can be distinguished from citizen protests through other Internet-based social media platforms. The above examples show that people can interact with others, share their opinions, and move their actions forward on specific issues with the use of Internet-based activities.

However, there has been limited research on the actual evolution, dynamics, and limitations of formal urban e-governance systems that add to our knowledge about how to build and maintain them as part of the formal institutional
structure of government. It is also important to learn how they relate to local political environments and how technological changes are integrated into the government-citizen structure. Various cities have developed in ways that reflect their political structure and ICT development. These factors are shown in the provision of service and information and types of citizen involvement in governance activities (WEEC 2012; Kang 2009).

In this context, there is a need to focus on e-governance initiatives from an institutional perspective. Examining e-Seoul from this perspective—consistently ranked highly on a global scale—is a step toward building knowledge in this area. To do this, the framework of this study focuses on select aspects of e-Seoul which are created and maintained by the Seoul Metropolitan Government. These relate to information and services it provides, direct citizen-governmental interaction, how the system has evolved, and how it has been affected by changes in technology and the overall political structure. The remainder of this chapter will discuss the concept and literature concerning e-governance, review the global rankings of national and urban e-governance systems, and specifically outline the focus and methodology that will be used for the case study of e-Seoul.

1.2 The Concept of E-governance

1.2.1 Definition of Governance

Governance involves decision-making and the process by which decisions are implemented (Putnam, 1993; Goldsmith and Eggers, 2004; Oh, 2006). The main function of governance focuses on managing and making decisions about public
affairs. Governance is “not an end product but a process (Kang 2006; Kim 2006).” It emphasizes the processes of politics and administration as well as the outcomes.

More specifically, it is a dynamic process in both policymaking and administration of public affairs. Many scholars have contributed to the collective definitions of “Governance.” Kooiman (1999) comments that governance is “the relationship between government and society that has become more interactive with increases in dynamics, diversity, and complexity.”

Governance can entail horizontal mutual reciprocity or equal partnership and mutual dependence between organizations. Historically, formal government has emphasized vertical relationships. Governance bears the responsibility of creating public policy through joint liability with the government, market, and citizens. Effectiveness, transparency, and responsibility are its goals. Therefore, we can approach one dimension of governance in this research as the operation of the public sector as an effective and efficient system and to overcome the shortcomings of a hierarchical governmental system (Kettl 1997; OECD 2008). In this dissertation, e-governance, from an institutional perspective, can be defined as Internet-linked relationships between citizens and governments in policy and administrative processes.

1.2.2 General Definition of Institutional E-governance

Formal e-governance, based on ICT initiatives, has been evolving since the early 1990s. The policymaking and administrative fields in particular have focused on the effects of these new ICT-related initiatives, typically labeled with terms like e-democracy, e-participation, and e-government. E-governance is emerging as a new tool for national and local governance (UNDESA & ASPA, 2002; OECD 2008), encapsulating the movement of governments towards using the Internet to deliver
public services and disseminate information. It involves citizens in policymaking processes using ICT (Choi 2009). According to West (2005), e-governance is a concept including total governmental service and information provision, which simultaneously emphasizes citizen involvement in the processes. Some researchers have focused more on citizen involvement than administration and management (Gartner 2006; Byun 2010). Others define e-governance in more general terms as including governmental action; service and information provision; citizen involvement in policymaking processes, and interactions between citizens and governments using ICT (UN 2002; OECD 2008; WEEC 2013).

The United Nations (UN), World Bank, and Organization for Economic Cooperation and Development (OECD) have provided definitions. The UN defines e-governance as utilizing the Internet to deliver government information and services, using ICT established by government agencies to better deliver services to citizens and promote interactions between industry and citizenry (UN 2002). Other uses have been identified as continuous optimization of service delivery, constituency participation, and governance by transforming internal and external relationships via ICT (OECD 2008). In general, e-governance involves the use of ICT in formal governmental activities to improve service and information provision, as well as citizen participation. Most recently, citizen involvement has been increased through the use of mobile devices such as PDAs and cell phones to facilitate public service and information delivery.

To provide a simplified operational definition for purposes herein, e-governance creates a cyber space where the provision of services, information, and citizen participation in public policymaking processes can take place. Both citizens
and governments can use e-governance initiatives for service and information provision, and citizen participation in administrative and policy processes.

For purposes of this study, e-governance is broadly defined and used in the following fundamental forms: 1) e-administration, 2) e-services, and 3) e-democracy or participation (KIPA 2006). Pavlichev and Garson (2004) state that the promises of e-government are 1) governmental performance of time and space compression, 2) lower cost of government with improved and transformed features, 3) a tool for solving social problems, and 4) the enhancement of voluntary and active citizen participation on a horizontal rather than vertical and hierarchical basis.

1.2.3 E-governance Characteristics

E-governance involves institutional processes that seek to enhance the role of citizens in governing and service activities as indicated below in Table 1-1 (Kim 2004; Lim and Tang 2008; UNESCO 2008). It is a way of describing the ICT links between government and its broader political, social, and administrative features (Kettl 1997; Holzer 2007; Eom 2010).

E-governance is the way in which citizens interact with agencies and officials in administrative matters or influence the legislative or public sector process (Moon 2002). Deloitte (2000), Riley (2003), and Roh (2007) refer to e-governance, as stated the Table 1.1, as encouraging direct citizen participation in policy discussions and administrative works. According to UNESCO (2005), e-governance involves new concepts of citizenship in terms of how citizens are informed and take part in service delivery and policymaking. Its objective is to involve, empower, and interact with the citizenry in policy-making processes.
Table 1.1  Concepts of E-governance

<table>
<thead>
<tr>
<th>Category</th>
<th>Author</th>
<th>Concepts</th>
</tr>
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<tbody>
<tr>
<td>Information and service provision using ICT</td>
<td>Deloitte (2000)</td>
<td>Information provision, two-way transaction, Portal service, customer-oriented portal, clustering public service, changing traditional pattern</td>
</tr>
<tr>
<td></td>
<td>World Bank (2007)</td>
<td>Use of ICT by government agencies, through which they have the ability to transform relations with citizens, business, and the arms of government.</td>
</tr>
<tr>
<td>Governance development with citizen participation</td>
<td>Riley (2003)</td>
<td>The movements of governments online to deliver their services, to provide their information, and to inter-communicate with citizens, all electronically.</td>
</tr>
<tr>
<td></td>
<td>Roh (2007)</td>
<td>Based on information acquisition and consultation, citizen participation and public deliberation will be available in e-governance</td>
</tr>
</tbody>
</table>

1.3 Evolution and Status of Formal E-governance

According to The UN (2010), 98% of UN membership countries have their own e-governance websites. A total of 67% provide one-stop Internet information and service provision. On the municipal scale, among the world's 100 largest cities, 92 cities have their own e-governance websites (WEEC 2012). According to WEEC (2012), 50% of these cities have a searchable database. Also, approximately 70% offer some services and information in more than one language. Fifty-seven percent have privacy or security provisions. In terms of citizen interaction,
70% of the cities have feedback processes, and 27% have policy forums (WEEC 2012).

1.3.1 Public Service and Information Dimensions

In the early stage of development, the focus was set up by the evaluation of internal efficiency and service satisfaction. Public service has changed by taking on a more customized and user-centric approach in the past two decades. Today, citizen involvement has increased the accuracy in determining citizen needs and the rapidity of the provision of public services (KIPA 2004). Using ICT has had the aim of improving information and service provision and making government more accountable, transparent, and effective (UNESCO 2008).

In the late 1990s, the U.S administration announced strategic e-governance initiatives to improve managerial efficiency and performance (Eom 1996). The Clinton Administration concentrated on an innovative administration project that was one of the most important strategies of raising governmental performance up until that time (Kwon 2007). Through the Clinton-Gore National Performance Review, creation of e-governance became closely linked to the creative use of information technology (Dawes 2008). In the late 1990s and the early 2000s, the U.S government structured e-governance websites and their service and information provision infrastructures. According to the U.S Office of Management and Budget (2003), federal information technology spending in the United States exceeded $52 billion in 2003.

In the late 1990s, the Korean government also began to concentrate on building an effective e-governance system to implement governmental innovations
through a citizen-oriented governance structure (Korean Ministry of Administration and Autonomy 2004). In general, e-governance started from its application in advanced countries and their municipalities.

1.3.2 Citizen Participation Dimensions

Citizen participation can be defined in many ways. Historically, citizen participation involved taking action in local and national agendas to effect change in policy or impact official decision-making processes. It implies a readiness on the part of both governmental bodies and citizens to accept certain pre-defined civic responsibilities and roles (Milakovich, 2010). By participating, citizens gain a status in the formal decision-making process. To achieve these, citizens must have a direct means of communication with their government.

Habermas (1989) stated that e-governance can unite the discourse among all elements and organize power relationships between citizens and governments. In this manner, e-governance can play a key role as an alternative means of constructing public space for deliberation between citizens and governments (Noh 2007; Choh 2009).

Many researchers point to evidence that supports the feasibility of participation in e-governance, which include 1) increasing debates on the Internet, 2) bridging the gap between governments and citizens, 3) enhancing decision-making by direct participation, and 4) the possibility of voting on the Internet (OECD 2005; SDI 2007; Dawes 2009).

Participatory activities are observed not only on official e-governance websites but also on portals, blogs, and other Internet spaces. Longford and Patten (2007) stated that ICT advances and improves access to producing, distributing, and
receiving information that allow ordinary citizens and civil society groups to become actors in the society and in decision-making processes. Citizen participation with governmental agencies is enhanced by interactive communication (Byun 2005).

1.4 Overall Performance of E-governance

1.4.1 Assessments of the Governance Process

Case study research has indicated that e-governance can contribute to a domestic governing structure (Lee and Perry 2002; Moon 2002; Norris and Moon 2005; Ahn and Schneider 2011). Positive evaluations associated with e-governance have found improved efficiency, accountability, and accessibility of public services and provision of information for citizens (Lee 2008; Ahn and Schneider 2011).

ICT-based governments can effectively involve public officials through new means of meeting organizational challenges. This also promotes policy networking within the organization with the strategic use of ICT to better implement established internal goals through direct communication between public officials (Tolbert & Mossberger 2006; Ahn & Bretscneider 2011). ICT lower costs, reengineers policymaking processes, and increases the efficacy of public services for citizens (Lim, Tan & Pan 2007; Ansell & Gash 2008).

E-governance has raised citizens’ trust in government, and in turn can lead to increased participation in the governance process (Sharma 2004; Madon 2004). Additionally, governments are inclined to put more trust in their citizens under an e-governance system. According to recent research (Choh 2009; Byun 2010; Lim 2010), e-governance begins in a development stage that is government-centered, then shifts to a more interactive model, and finally becomes citizen-centered. However, this is an
idealized progression model, and, in reality, the development stage may be realized as multi-layered integrated governance (Garson 2006). Through governmental resources and ICT infrastructures, each national and municipal e-governance system mixed a multi-layered status quo in their e-governance realization (WEEC 2012).

1.5 Global E-governance Rankings of Nations and Cities

A number of institutions and organizations have conducted national e-governance or municipal e-government evaluations at the global level. The United Nations (UN) and World Economic Forum (WEF) are involved. The Organization for Economic Development (OECD) issues an annual report concerning E-governance to provide guidance and standards for both governments and citizens. The World E-governance Evaluation Committee (WEEC) carries out a global city e-governance survey biannually that covers 100 metropolitan urban areas.

1.5.1 The UN National Level Evaluations

In order to assess e-governance development around the world, the United Nations Department of Economic and Social Affairs (UNDESA) surveyed the UN’s 193 members in 2010. It focused on how governments are using websites and Web portals to deliver public services and expand opportunities for citizens to participate in decision-making (UN 2010).
Table 1.2  Concepts of E-governments

<table>
<thead>
<tr>
<th>Measurement Index</th>
<th>Stage of E-governance</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-government Development Index</td>
<td>Stage 1. Emerging</td>
<td>One-way information provision Link with other institutions Public release of governmental news</td>
</tr>
<tr>
<td></td>
<td>Stage 2. Enhanced</td>
<td>Developed 1 or 2 way service Petition and multi-language service Online request</td>
</tr>
<tr>
<td></td>
<td>Stage 3. Transactional</td>
<td>Two way online service and interaction Online log-in and verification system e-vote and e-tax payment Security network</td>
</tr>
<tr>
<td></td>
<td>Stage 4. Connected</td>
<td>Web 2.0 based activities Customized public service Citizen involvement in policymaking</td>
</tr>
</tbody>
</table>

ICT Infrastructure Index
- Computer provision / Internet users
- Cell phone users (per 100 people)

Human Capital Index
- Education level
- Literacy rate

Source: World E-government Evaluation by UN in 2010

This survey used two broad measures of e-governance: the e-government development index and the e-participation index. The former focuses on the internal efficiency and performance of public service provisions, while the latter emphasizes citizen capacity to participate in e-governance.

The UN measured e-governance systems in relation to four developmental stages; 1) Emerging, 2) Enhanced, 3) Transactional, and 4) Connected. As indicated in Table 1.2, the emerging stage consists of one-way information provision only. The enhanced second stage adds two-way services and limited online requests. The transactional stage includes two-way communication and networks, successfully building up user-demand services such as e-tax payment. The connected stage has
Web 2.0 features, such as customized public services and citizen participation in policy processes. The e-government development index also measured ICT infrastructure and the human capital index. The infrastructure index is based on computers, Internet access, and cell-phone users per 100 people. The human capital index is based on the education level and literacy rate of a nation’s population (UN 2010).

Table 1.3  UN E-government Measurement Index and Contents of Internet Participation

<table>
<thead>
<tr>
<th>Measurement Index</th>
<th>Stage of E-governance</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Participation Index</td>
<td>Online Information Provision</td>
<td>Information for participation Online policy forum</td>
</tr>
<tr>
<td></td>
<td>Online Policy Participation</td>
<td>Citizens’ suggestion Feedback and citizens poll</td>
</tr>
<tr>
<td></td>
<td>Online Policymaking</td>
<td>Online debate forum Online based poll and vote</td>
</tr>
</tbody>
</table>

Source: World E-government Evaluation by UN in 2010

The UN survey also constructed an Internet Participation Index. As Table 1.3 indicates, the Internet Participation Index is composed of the following three measures: 1) online information provision, 2) citizen feedback and polls, and 3) online policy participation for policymaking. Online policy forum management, online votes and polls, and feedback to citizens from their government are used to evaluate the measurements. Internet participation can be observed in all stages of development; however, it is primarily focused on stages 3 and 4.

Using these indices, the UN ranks national e-governance systems biannually with a possible score 0 to 1. Table 1.4 below lists the top ten nations in
terms of performance and readiness of their Internet governance and citizen participation for 2010.

Korea was at the top of the list. Six of the top ten are European countries, two are North American, and one is an Oceania country. The world average score was 0.44—considerably lower than the scores of the top ten nations (UN 2010).

Table 1.4  Top 10 Nation of World E-government Ranking in 2010

<table>
<thead>
<tr>
<th>Rank</th>
<th>Nation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Republic of Korea</td>
<td>0.8785</td>
</tr>
<tr>
<td>2</td>
<td>United States of America</td>
<td>0.8510</td>
</tr>
<tr>
<td>3</td>
<td>Canada</td>
<td>0.8448</td>
</tr>
<tr>
<td>4</td>
<td>United Kingdom</td>
<td>0.8147</td>
</tr>
<tr>
<td>5</td>
<td>Netherlands</td>
<td>0.8097</td>
</tr>
<tr>
<td>6</td>
<td>Norway</td>
<td>0.8020</td>
</tr>
<tr>
<td>7</td>
<td>Denmark</td>
<td>0.7872</td>
</tr>
<tr>
<td>8</td>
<td>Australia</td>
<td>0.7863</td>
</tr>
<tr>
<td>9</td>
<td>Spain</td>
<td>0.7516</td>
</tr>
<tr>
<td>10</td>
<td>France</td>
<td>0.7510</td>
</tr>
</tbody>
</table>

Source: World E-government Evaluation by UN in 2010

According to the UN (2010), the general findings of the 2010 survey are that citizens get benefits from more developed and refined service delivery through e-governance, easier access to information, more efficient internal government
organizations, and improved mutual interaction between citizens and governments. The advanced countries and regions lead in e-governance initiatives, though many developing countries have still to fully develop transactional services or properly prepare the necessary infrastructure.

The OECD also conducts e-governance studies at the national level. Research includes a variety of e-governance measures. Seven features are used in evaluating e-democracy: 1) construction of new public space, 2) various methods of communication, 3) integration between given institutions and e-democracy, 4) interaction between citizens and governments, 5) providing accurate information, 6) guaranteeing the opportunity for citizens' opinions to be heard, and 7) democratic approach (OECD 2008; 2011).

OECD does not make e-governance rankings. However, it releases its own e-governance handbook annually. A 2012 OECD workshop was held in Paris, France to develop an E-governance Index. In this workshop, the OECD introduced Korean e-governance as an example for other countries to follow. Also, OECD officially asked the Korean government to help in designing an e-Governance Development Index (Asia Today 2012).

1.5.2 Metropolitan City Scale Evaluations

The E-governance Institute of Rutgers University has been conducting research on world cities' e-governance performance. The Institute created the World E-governance Evaluation Committee (WECC) and started a World Municipal E-governance Survey. This survey has been conducted biennially since 2003. From 2003 to 2009, Sungkyunkwan University of Korea participated in the work. In 2011, Kent State University in the U.S. became an additional collaborator in this survey.
This survey represents a continued effort to evaluate digital governance and its direction in large municipalities throughout the world. The criterion for inclusion in the survey is an Internet population that exceeds 160,000, and 100 cities are selected, including Hong Kong and Macao.

Table 1.5  Municipal E-governance performance measurements by WECC

<table>
<thead>
<tr>
<th>Measures</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security/Privacy</td>
<td>Privacy policies and data management</td>
</tr>
<tr>
<td>Usability</td>
<td>User-centered design, length of homepage, and site search capabilities</td>
</tr>
<tr>
<td>Contents</td>
<td>Accurate information, public documents, reports, publications, and multimedia materials</td>
</tr>
<tr>
<td>Service</td>
<td>Transactional services (purchase or registration), and interaction between citizens, businesses, and government</td>
</tr>
<tr>
<td>Participation</td>
<td>Civic engagement/policy deliberation and citizen-based performance measurement</td>
</tr>
</tbody>
</table>

Source: 4th World Municipal Website Survey report in 2010

The top 100 most wired nations were identified using information on the total number of online users, obtained from the International Telecommunication

---

2 Geographically, 14 African, 31 Asian, 34 European, 19 American, and 2 Oceania countries compose the 100 municipalities.

3 This measurement form comes from Rutgers’ World Municipality e-government evaluation. It focuses on five categories and evaluates as weighted value (total 100 points).
Union (ITU) and UN's official data. The largest city by population in each of these 100 countries was then selected for the survey, as a surrogate for all cities in a particular country (WEEC 2010; 2012). Utilizing the largest municipalities stems from the e-governance literature, which suggests a positive relationship between population and e-governance capacity at the local level (Moon, 2002; Moon and deLeon, 2001; Musso, et. al., 2000; Weare, et. al. 1999). The data looked at here is from the 5th evaluation that was measured from August 2011 to December 2011 for the 2011 report. Of the 100 cities selected, 92 cities were found to have official websites (WEEC 2012).

As indicated in Table 1.5, the survey used five measurement categories; 1) security and privacy, 2) usability, 3) information content, 4) service, and 5) citizen participation. Security and privacy are measured by the city's management of privacy policies, authentication, encryption, data management, and cookies. Usability is measured by observing the targeted audience, the site map, and the site's search tool. The above three factors are evaluated through user-friendly design, length of homepage, and searching capabilities. This section focuses on a user's convenience for using e-governance website. For information content, the WEEC investigated the access to current information, public documents, reports, and multimedia content. Service content was measured according to five major concentrations: 1) emergency management, 2) access for blind citizens, 3) access for deaf citizens, 4) wireless technology, and 5) access in more than one language. The measuring points of service provision were searchable database, portal communication, and access to private

---

4 From previous evaluations, there were 81 cities with official websites in 2005, 86 in 2007, 87 in 2009, and 92 in 2011.
information. This includes transactional services and interaction between government and citizens on the Internet (WEEC 2012).

Participation is based on opportunities for citizens to become involved in governmental processes, including well-organized and systematic approaches to submit their own ideas and suggestions on proposed e-policies via online forums. It enables governmental bodies and elected officials to respond directly and promptly to citizens’ initiatives and inquiries when establishing public policies within the city (WEEC 2012).

Table 1.6 E-governance Scale by WEEC

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Information about selected topics do not exist on the website</td>
</tr>
<tr>
<td>1</td>
<td>Information about selected topics exist on the website (including links to other information and e-mail addresses)</td>
</tr>
<tr>
<td>2</td>
<td>Downloadable items are available on the website (forms, audio, and other one-way transactions, popup boxes)</td>
</tr>
<tr>
<td>3</td>
<td>Services, transactions, or interactions can take place completely online (credit card transactions, applications for permits, searchable databases, use of cookies, digital signatures, restricted access)</td>
</tr>
</tbody>
</table>


5This scale data comes from WEEC’s 5th report in 2012.
Basically, each measurement category is worth 20 points, with 100 points the maximum available for a system. For questions that were not dichotomous, each measure was coded on a four-point scale, 0 to 3 as indicated in Table 1-6 (Holzer et al 2008; WEEC 2010 and 2012). The local researchers who were engaged by Rutgers University made the basic survey measurements. They used ITU and UN data about the cities' demographics and Internet infrastructure. In developing an overall score for each municipality, WEEC has equally weighted each of the five categories so as not to skew the research in favor of a particular category. To ensure reliability, each municipal website was assessed in the native language by two evaluators, and in cases where significant variation (+ or - 10%) existed on the adjusted score between evaluators, websites were analyzed by a third person (WEEC 2012).

Among the top 10 cities, three are from Asia, five from Europe, and two from North America. At the top was Seoul. This city has been ranked first in all prior surveys since their start in 2003 and including 2005, 2007, and 2009 (WEEC 2012). Among the five categories listed in Table 1.7 for 2011, Seoul was ranked highest in four—privacy, usability, service, and citizen participation—and second in content (WEEC 2012).
Table 1.7  Top 10 Cities of E-governance in 2012

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Overall</th>
<th>Privacy</th>
<th>Usability</th>
<th>Content</th>
<th>Services</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seoul</td>
<td>82.23</td>
<td>13.33</td>
<td>18.44</td>
<td>16.67</td>
<td>17.55</td>
<td>16.25</td>
</tr>
<tr>
<td>2</td>
<td>Toronto</td>
<td>64.31</td>
<td>10.74</td>
<td>16.88</td>
<td>16.83</td>
<td>12.79</td>
<td>7.09</td>
</tr>
<tr>
<td>3</td>
<td>Madrid</td>
<td>63.63</td>
<td>12.22</td>
<td>16.88</td>
<td>15.08</td>
<td>12.79</td>
<td>6.67</td>
</tr>
<tr>
<td>4</td>
<td>Prague</td>
<td>61.72</td>
<td>12.59</td>
<td>16.25</td>
<td>13.02</td>
<td>8.20</td>
<td>11.67</td>
</tr>
<tr>
<td>5</td>
<td>Hong Kong</td>
<td>60.81</td>
<td>11.11</td>
<td>17.82</td>
<td>13.65</td>
<td>13.44</td>
<td>4.80</td>
</tr>
<tr>
<td>6</td>
<td>New York</td>
<td>60.49</td>
<td>11.11</td>
<td>15.94</td>
<td>13.81</td>
<td>12.13</td>
<td>7.50</td>
</tr>
<tr>
<td>7</td>
<td>Stockholm</td>
<td>60.26</td>
<td>17.41</td>
<td>13.13</td>
<td>12.54</td>
<td>11.15</td>
<td>6.04</td>
</tr>
<tr>
<td>8</td>
<td>Bratislava</td>
<td>56.74</td>
<td>13.33</td>
<td>16.26</td>
<td>10.64</td>
<td>9.02</td>
<td>7.50</td>
</tr>
<tr>
<td>9</td>
<td>London</td>
<td>56.19</td>
<td>12.22</td>
<td>15.63</td>
<td>11.75</td>
<td>11.81</td>
<td>4.79</td>
</tr>
<tr>
<td>10</td>
<td>Shanghai</td>
<td>55.49</td>
<td>7.78</td>
<td>13.44</td>
<td>12.07</td>
<td>12.62</td>
<td>9.58</td>
</tr>
</tbody>
</table>

Source: 5th World Municipal Website Survey, 2011.

In its findings, WEEC (2012) stated that the 2011 survey shows increases in e-governance performance around the world. In the initial stages of e-governance, governmental productivity and performance was the focal point. Recently, however, citizen involvement and the benefits of service and information distribution became
the core criteria in e-governance assessment (WEEC 2004; 2006; 2008; 2010; 2012). They also indicate the digital divide gap between OECD and non-OECD member countries in average scores and found that e-governance performance is related to economic status and infrastructure development (WEEC 2012).

1.6 Critical Issues

Along with the literature that is favorable toward the performance and efficacy of e-governance, some researchers point out that there are matters of concern about the effectiveness or even the existence of e-governance (Edmiston 2002; Ho 2002; Ahn and Schneider 2011). More specifically, these relate to three categories: 1) institutional problems such as legislative and budgetary issues, 2) lack of service quality, and 3) the digital divide (OECD 2003).

According to the UN (2010), a number of nations do not have legislative and regulatory institutions for an e-governance system. The 2010 National Readiness Index report finds that one critical reason why some countries cannot develop their own e-governance is lack of institutional resources and support (WEF 2010). Budgetary problems can exist (Choh 2009). The UN (2010) found that less developed countries have problems related to the cost of ICT, lack of appropriate institutions, limited human capital, and a weak private sector. Some academics state that e-governance still faces bureaucratic issues (Scott 2006; Lim 2010; Hwang 2012).

Institutional and budgetary problems can result in a lack of service quality in e-governance practice. According to The UN (2010), 46% of total membership countries provided only one-way information or services as of 2010. Only 23% of national e-governments provided e-voting and e-tax payment services. Furthermore,
online log-in and verification systems are available in only 52% of total membership countries.

When less developed nations build national governmental websites, they tend to provide basic information about the country and a brief explanation of services provided (UN 2010). Regarding municipalities, 8% of the world’s 100 largest cities do not have their own municipal websites. None of these 8% are in OECD countries (WECC 2012). Many social researchers and practitioners are concerned with the unequal distribution of global Internet access and use. In fact, the advent of the Internet Era brought about “the digital divide”, which has far-reaching implications within the global community.

The gap that exists in the digital era is measured by the uneven distribution and usage of ICT (DiMaggio & Hargittai 2001; Choh 2005). This gap is called “the digital divide” and can be defined as a gap between the information rich and the information poor (World Bank 2008). The gap is most significant for individuals separated in terms of: 1) gender, 2) region, 3) income, and 4) education level. Generally, the lack of informational access and the separation among these classifications is more present in less developed nations (WEF 2012). Thus, the least participatory and less connected countries to e-governance are in Southeast Asia, South America, and Africa (UN 2010).

Some researchers state that the digital divide blocks access to gathering public opinion and the decision-making processes for the “have-nots (DiMaggio and Hargittai 2001; NTIA 2000).” Access to education, better jobs, and healthcare will be enhanced by the Internet, which creates a new arena for political discussion and serves as a platform for direct access between citizens and government. Though one goal of
e-governance can be to empower the poor and underprivileged, in reality, it can bypass them.

1.7 The Focus of the Study

This study will focus on three major dimensions of e-Seoul created and operated by SMG: information, service, and participation. It will also examine e-Seoul as a form of institutional governance, and how e-Seoul has developed and been influenced by changes in ICT and the general political power structure of Seoul.

Upon reviewing the above research and assessments, it is clear that institutional e-governance initiatives have become embedded in urban governance over the past two decades. It has become a major formal communication tool for citizens and governments. Most researchers have noted that an effective system of e-governance can 1) increase productivity, effectiveness, transparency, and accountability of government (Myong 2005; NISC 2012); 2) provide prompt, cost-effective service and information using ICT (SMG 2012), and 3) foster citizen involvement in policymaking processes (Lim 2010; Hwang 2012; Lee and Kim 2013).

As indicated in this chapter, Korea and Seoul’s e-governance and ICT infrastructure have been evaluated as part of the first tier in global assessments. However, there is limited research on the evolution, detailed functioning, and political context of formal e-governance systems in general and in the case of e-Seoul. The case study is divided into five chapters beyond this Introduction.

First of all, we need to investigate an indication of what can be identified as the body of literature that exists that focuses on e-Seoul. The recent research indicates that e-Seoul system provides a new emerging and positive way for citizens to
involve in local governance. The mutual satisfaction between citizens and government makes the more influential and effective urban governance circumstances using ICT.

Kim and Lee (2012) examined the relationship between the Internet participation and trust in municipal governance connecting via formal e-governance participatory menu using a case study with the Imagination Board. As a result, positive association occurs between citizens’ satisfaction of governmental transparency and their trust in the provision of participatory menu of e-governance system.

Porumbescu and Im (2012) investigated how greater use of e-Seoul for information by citizens influences their satisfaction of governmental performance. They found that more frequent use of e-Seoul positively affects perception and satisfaction of SMG’s performance.

SMG adopted ICT on its governmental way since the late 1990s and has expanded its territory from information and service to citizen involvement in policy processes (Lim 2010). The evolution history includes both the technical advancement and political leadership (Moon and Lee 2008; Choh and Oh 2012). This dissertation discusses the literature that focuses on the history and evolution of e-Seoul, on its e-information, e-services, and e-participation, and the overall political context that it operates in.

Although there have been a number of things published, the given research on e-Seoul has tended to be focused on a particular dimension of the system, a particular time period and, at times, does not fully undertake critical analysis.

In this vein, this research will explain the practical use and status of e-Seoul and its evolution, adoption, and usage. Now, we will turn to outlining the way in
which the case study of e-Seoul undertaken for this research is set up and the data sources utilized.

Chapter 2 examines the national e-governance policy and development in Korea and looks at the evolution of e-Seoul over the last decade-and-a-half. Particular attention is given to the roles of the SMG mayor and changing technology in the process, as well as to describing selected aspects of information, services, and opportunities for citizen influence provided by the system.

Research and assessment of three major dimensions—information, services, and citizen participation—will be discussed in Chapter 3. This chapter will provide a more detailed examination of citizen use patterns of selected types of information and services described in the focus and contents of e-Seoul, broken down by information and service category. This chapter focuses on direct citizen participation in deliberative governance. In particular, it will discuss the development and change of the “Cyber Forum”, “Appeal to the Mayor”, “Imagination Board”, and the growing use of e-Seoul providing SNS citizen-linkages to the SMG and the mayor.

Chapter 4 deals with citizen participation in-depth at the dimensions of practical cases and catalyst groups. It also identifies and examines a citizen advocacy group that has gained significant influence in the operation of the e-governance mechanism that provides the greatest direct citizen involvement in policymaking, and it considers factors limiting citizen use of e-Seoul. Finally, Chapter 5 summarizes the findings and assessment of e-governance in Seoul, what has been added to the literature, further issues, and suggested research.
<table>
<thead>
<tr>
<th>Category</th>
<th>Data Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>SMG official statistics 2002 through 2011</td>
</tr>
<tr>
<td></td>
<td>(Each section use rate / users demographics / change and development history)</td>
</tr>
<tr>
<td></td>
<td>Operational data set from official websites</td>
</tr>
<tr>
<td></td>
<td>User survey in 2011 (SMG)</td>
</tr>
<tr>
<td>Service</td>
<td>SMG official statistics 2003 through 2011</td>
</tr>
<tr>
<td></td>
<td>(Each section use rate (Tax, Mobile, Reservation, and Certification) / users demographics / change and development history)</td>
</tr>
<tr>
<td></td>
<td>User survey in 2011 (SMG)</td>
</tr>
<tr>
<td>Citizen Participation</td>
<td>SMG official statistics 2003 through 2011</td>
</tr>
<tr>
<td></td>
<td>(Internal data about the Imagination board – general performance since 2006 through the early 2012 / Other SNS linkage data 2010 through 2012 / Appeal to Mayor general statistics since 1996 through 2012)</td>
</tr>
<tr>
<td></td>
<td>User survey in 2009 (Kang)</td>
</tr>
</tbody>
</table>
Official SMG materials are a basic source of data. SMG has released annual reports about its e-governance system that include data regarding the types and uses of e-information and service provision and citizen participation in the e-Seoul system. The Department of Information and Planning (DIP) of SMG has accumulated internal statistics regarding citizen participation through the Imagination Board. This data set will be utilized to examine citizen participation in e-Seoul. Internal reports and the “Seoul Information Master Plan” from the SMG are also used. The data used related to information, service, and citizen participation mainly detail 2003
through 2010, although some of the statistics on infrastructure and survey data are available from 2011 and 2012.

Data on total hits and their distribution on the information menu are used to help understand citizen usage and preference among the available options. In relation to e-services, data on taxes, reservations, and Internet requests are used. Furthermore, a survey carried out by SMG provides data on how a sample of users evaluated various dimensions of e-Seoul.

Annual data concerning the Cyber Forum, Appeal to the Mayor, and Imagination Board provide a picture of the changes of participatory actions and their usage and topical foci. An Imagination Board user survey (Kang 2009) is also drawn upon.

The purpose of the next chapter is to examine the evolution and current status of e-Seoul. It has a two-fold focus. First, it provides a picture of the development of e-governance and e-governance policies at the level of the national government in Korea. This will go into more detail through reviewing how the SMG constructed it and its infrastructure for information, service provision, and citizen participation. Second, it considers how e-Seoul’s development has been related to changes in technology and the area’s political system, primarily in terms of the role of the SMG mayors.
Chapter 2

EVOLUTION OF SEOUL-FROM E-SEOUL TO U-SEOUL

2.1 Background of E-governance of Korea and E-Seoul

2.1.1 Overview of National E-governance Plan of Korea

The Korean government began its “National Basic Electronic Network” project in 1987 as a national intelligence and information plan that included information about registration, property, and automobile matters. In the 1990s, the Korean government completed its own internal ICT administrative system for efficiency and systematic information archiving. The Korean government developed the “National Information Strategy Plan” and launched e-government nationally in the late 1990s through the Internet. The plan was initiated by President Kim, Daejoong in 1998 and is administered by the “National Information Strategy Committee” which is headed by the Vice Prime Minister. This committee is composed of 35 members who are made up of thirteen government officials and twenty-two private sector professionals (Choh 2008).

6 In 1998, the Korean Government established the “National Information Strategy Committee.” The Vice Prime Minister, in charge of information and technology, was Chair of the committee. The 13 related cabinets and 22 professionals were the committee members. The committee’s purpose was to build a strong ICT infrastructure and administrative information system among the national governmental agencies.
Currently, Korea's national plan for "Information and Intelligence"—renamed "National Information Strategy Plan" by President Lee Myongbak in 2008—is composed of five sections: 1) national and social information, 2) e-government, 3) privacy protection, 4) information security, and 5) ICT infrastructure (KISDI 2010). It contains both customized services and administrative operations.

The "National Information Strategy Plan" has been a key to expanding and standardizing e-governance systems for national agencies and municipalities. This has fostered governmental bodies to enhance their interrelationship through horizontal and vertical work processes. In order to bolster efficient management, the Korean government has built an "Integrated Management System" that is composed of two national electronic management centers. One is the national archive, and the other is a national information data management center under the Ministry of Administration and the Ministry of Information and Technology. A data management center is in each of these national government ministries (KIPA 2011).

According to Suh (2008), the introduction of e-governance in Korea has led to governmental service and information provision reform through infrastructure and system design from the late 1990s through the mid 2000s. In the administrations of Korean presidents Kim, Daejoong and Noh, Moohyun from 1998 through 2007, national strategies and legislative institutions were set up to facilitate ICT-related services and process time reduction, management cost reduction, and administrative effectiveness (The Ministry of Administration of Korea 2008).

On the subject of citizen participation, "Sinmoongo" was launched in 2005. This is the space where citizens make suggestions, participate in administrative work, and petition the national government (The Korea Ministry of Administration...
2007). The national and local governments of Korea are electronically linked with one another and can connect to service and participatory menus by a one-click process.

According to the results of the 2010 evaluation by the UN, as noted in Chapter One, Korea is the top ranked nation for e-governance. Since the early 2000s, the Korean government has constructed a citizen-centered service and information provision with a user-friendly website design. According to The Korean Ministry of Administration (2012), the “Smart E-governance Plan” is reflected in this evaluation as a sustainable investment. In 2011, President Lee Myongbak established this plan to promote sustainable ICT development. It was the continuation of the basic national strategies of the former regimes with the addition of mobile and ubiquitous projects.

Korea has entered the ‘connected’ stage of the UN index with Web 2.0 initiatives. Almost all of Korea’s governmental agencies and municipalities are utilizing two-way interactive websites with citizen participation. Furthermore, on the subject of infrastructure and human capital, Korea’s high UN ranking reflects a well-built physical system and well-educated users. From the aspect of participation, Korea’s governance websites provide content that fosters citizen involvement in policymaking processes through the provision of information and sharing between citizens.

In 2001, President Kim Daejoong set out and followed “E-government II major projects (KIPA 2004).” “E-government II major projects” centered on e-petition as a core principle. The Korean national government established “The E-government Law” in March 2001 to support e-governance services, both at the municipal and national government levels.
Table 2.1 “E-government Major Projects” by Korean National Government in 2001

<table>
<thead>
<tr>
<th>Category</th>
<th>Major Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public service provision</td>
<td>1. Citizen-centered public service provision</td>
</tr>
<tr>
<td></td>
<td>2. Major social security and safety system management</td>
</tr>
<tr>
<td></td>
<td>3. National integrated logistics system</td>
</tr>
<tr>
<td></td>
<td>4. Home Tax Service (HTS) construction</td>
</tr>
<tr>
<td></td>
<td>5. Total administrative system with municipalities</td>
</tr>
<tr>
<td>Administrative performance development</td>
<td>6. National financial management system</td>
</tr>
<tr>
<td></td>
<td>7. Educational information system</td>
</tr>
<tr>
<td></td>
<td>8. Standardized personnel management system</td>
</tr>
<tr>
<td></td>
<td>9. Internet decision and electronic official document archive</td>
</tr>
<tr>
<td>System and technological support</td>
<td>10. Integrated information and electronic system construction</td>
</tr>
<tr>
<td></td>
<td>11. Personal and privacy security system</td>
</tr>
</tbody>
</table>


Next, the national “E-government Roadmap” led e-governance initiatives from 2003 to 2007, which were generated by President Noh Moo-Hyun’s administration with four major purposes which emphasized interdepartmental services and sharing of information (Shin 2007; KIPA 2008). The four major purposes were innovations in public services, information resource management, law and institution,
and government in general (KIPA 2004). During this period, both national and local
governments integrated their services platforms and infrastructure year by year. From
2008 to 2010, the national e-governance project focused on ubiquitous technology and
coop erative governance construction.

The most recent national information and e-governance plan is the “Smart
Committee (NISC) designed it. This plan is composed of five major themes. From
2011 through 2015, the Korean government will allocate 29 million USD for the plan.
The specific contents are described in Table 2.2.

Table 2.2 “Smart E-government Master Plan” by Korean National Government in
2011

<table>
<thead>
<tr>
<th>Category</th>
<th>Major Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish the World’s Best Mobile E-government</td>
<td>- Developing 197 topics for new mobile culture</td>
</tr>
<tr>
<td></td>
<td>- Complaint and monitoring service via mobile</td>
</tr>
<tr>
<td></td>
<td>- Establishing the “Mobile E-government Center.”</td>
</tr>
<tr>
<td></td>
<td>- Various mobile-based public service provisions</td>
</tr>
<tr>
<td>Build a Safe Society</td>
<td>- Nationwide “Rescue Center” unification</td>
</tr>
<tr>
<td></td>
<td>- Completing a “Missing Children Support System”</td>
</tr>
<tr>
<td></td>
<td>- Establishing a CCTV unified management system</td>
</tr>
</tbody>
</table>
2.2 E-governance Structure of Seoul

2.2.1 Characteristics and Demographics of Seoul

As of December 2014, Seoul proper comprises 605.21 km² (Seoul Statistics 2015) and is roughly bisected into northern and southern halves by the Han River. The city of Seoul is surrounded by the Capital Region, including Kyonggi Province with a population of 12 million and Incheon with a population of approximately 4 million (Statistics of Korea 2013). Both Seoul and The Capital Region comprise half the total population of Korea, even though their physical area is only 10% of Korea’s territory.

As of March 2015, Seoul had a population of 10,369,067, including 268,080 foreigners, and 3,599,692 households with 2.88 per household (http://stat.seoul.go.kr). Seoul’s median age has increased by 3 to 4 years each decade.
from 21.4 in 1975 to 34.3 in 2005 (SDI 2007). In 2012, Seoul had approximately 30% of the population between 25 and 39, and over 40% of the population 25 or younger.

Table 2.3 Information and Infrastructure of E-Seoul

<table>
<thead>
<tr>
<th>Information use and Infrastructure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Income per household: 34,105 USD (2010)</td>
<td></td>
</tr>
<tr>
<td>Average Internet use per day: 1.82 hours (2010)</td>
<td></td>
</tr>
<tr>
<td>Personal computer provision rate: 85.6% (2009)</td>
<td></td>
</tr>
<tr>
<td>Broadband Internet penetration rate: 34.4% (2010)</td>
<td></td>
</tr>
<tr>
<td>Penetration of high-speed Internet rate: 88.4% (2010)</td>
<td></td>
</tr>
<tr>
<td>Internet Mobile phone use rate: 78.5% (2013)</td>
<td></td>
</tr>
<tr>
<td>Registered members of E-Seoul: 945,699 (2012)</td>
<td></td>
</tr>
</tbody>
</table>

Source: The official Statistics Report of Seoul and Seoul Survey Data from Seoul Institute

Overall computer provision and high-speed Internet penetration per household in Seoul are the highest in the world (SMG 2012; UN 2011). Drawing upon several sources, a number of estimates have been made related to citizen use of technology (SMG 2009; Kang 2010; SMG 2012). First, the average Internet use of citizens is 1.82 hours per day. 85.6% of households had computers in 2009. High-speed Internet penetration rate was 88.4% in 2010. Among this group, 33.4% of the citizens are connected with broadband Internet service. Seoul’s mobile phone

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7 The statistics are estimated from SMG official website data and The Department of Statistics in Korea.
ownership rate was 101% in 2010, and approximately 63% of the citizens used Internet-based mobile phones in 2012. There were 945,699 citizens registered with the e-Seoul system in 2012. Those registered are officially members of e-Seoul with personal identification and a security number on the e-Seoul website.

Table 2.4 Registered Members of E-Seoul as of March 2012

<table>
<thead>
<tr>
<th>Age</th>
<th>Total (100%)</th>
<th>&lt; 20 (6.0%)</th>
<th>20s (14.5%)</th>
<th>30s (31.4%)</th>
<th>40s (27.2%)</th>
<th>50s (13.0%)</th>
<th>60s (5.3%)</th>
<th>Over 70 (2.6%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>509,624 (53.9%)</td>
<td>25,123 (2.7%)</td>
<td>59,623 (6.3%)</td>
<td>155,330 (16.4%)</td>
<td>140,878 (14.9%)</td>
<td>77,902 (8.2%)</td>
<td>34,130 (3.6%)</td>
<td>16,638 (1.8%)</td>
</tr>
<tr>
<td>Female</td>
<td>436,075 (46.1%)</td>
<td>31,509 (3.3%)</td>
<td>77,355 (8.2%)</td>
<td>140,956 (15.0%)</td>
<td>116,869 (12.3%)</td>
<td>45,715 (4.8%)</td>
<td>16,297 (1.7%)</td>
<td>7,374 (0.8%)</td>
</tr>
</tbody>
</table>

Source: Internal Report of the DIP in 2012

Of the 945,699 citizens registered in 2012, 54% are male and 46% female. Those in their 30s and 40s make up the primary user group and account for 58.6% of the entire membership population. All membership services were integrated in one log-in service system in 2012 and contributed to the membership increase that year. Members are required to re-register every two years.

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8 This rate includes all registered cell phones in Seoul. Some citizens have 2 or more cell phones.
### Table 2.5 Regional Distribution of E-Seoul Members as of March 2012

<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Seoul</td>
<td>692,355</td>
</tr>
<tr>
<td></td>
<td>(73.2%)</td>
</tr>
<tr>
<td>Kyonggi Province and City of Incheon</td>
<td>174,418</td>
</tr>
<tr>
<td></td>
<td>(18.5%)</td>
</tr>
<tr>
<td>The rest of Korea and overseas</td>
<td>78,926</td>
</tr>
<tr>
<td></td>
<td>(8.3%)</td>
</tr>
<tr>
<td>Total</td>
<td>945,699</td>
</tr>
<tr>
<td></td>
<td>(100.0%)</td>
</tr>
</tbody>
</table>

Source: Internal Report of the DIP in 2012

Approximately 73% of all members live in Seoul. 19% of members reside in the Capital Region Kyungsu and Incheon and are likely to be working in or frequently visiting Seoul. Thus, 92% are within the extended Seoul metropolitan region.

#### 2.2.2 Institutions and Politics of Seoul

Seoul is by far the biggest city in Korea and has been the national capital city since 1394. Thus, for over 600 years, it has been the political, social, cultural, and economic center of Korea. Initially, Seoul was limited to a walled space with four main gates in the Choseon Dynasty (1392-1910). Significant horizontal expansion began after modern transportation means were built in the late 19th and early 20th century (SMG 2011). The present boundaries of Seoul were settled in 1963. This accompanied large-scale land-use adjustment projects and rapid industrialization.
Throughout the 1960s and 1970s, Seoul went through drastic urban expansion and internal transportation demands, resulting in many positive and negative changes. As a result, there was a rapid increase in building and population density. According to SMG's official introduction (2005), Seoul is a city where Korea's traditional and modern cultures coexist.

In terms of population, Seoul had 278,957 people in the first modern national census in 1910. It broke the million mark in 1942. After liberation from Japan in 1945 and The Korean War, Seoul experienced a rapid change in its population size and recorded 10 million in 1988. Seoul has 25 administrative boroughs, or "Gu"9, that trace back to the 1963 physical area expansion of the city's boundaries (SMG 2012).

The modern scale of Seoul began during the age of the Japanese occupation from 1910 to 1945. Seoul was called "Kyungsung" during that time. After independence in 1946, Koreans renamed it Seoul ("Capital City" in Korean). In 1949, Seoul was separated from Gyeonggi Province and was granted the status of "Seoul Special District City." In 1950, during the Korean War (1950-1953), Seoul was occupied by North Korean troops for a time and the city was almost entirely destroyed. The city was taken by South Korean and UN Forces in March 1951. After the Korean War, Seoul expanded its population and geographical size. In 1961, it had 3 million people, and by 1963 it was engaged in urban planning projects which included moving housing and industrial facilities to peripheral areas (SDI 2007). It was at this point that the governing military regime decided to spatially expand Seoul (Seoul History Museum 2011). From the 1960s through 1995, Seoul was managed by a local

9 "Gu" means sub-borough of Seoul. It is an autonomous administrative district, and has its own elected officials and legislative council.
government which was appointed by the national authoritarian government. Thus, public officials including city and borough mayors, the budget, and administrative power were under control of the national government. There was a transition from three decades of military rule to democratic government in the late 1980s at the national level. Local elected officials were established in the early 1990s. The Seoul mayor, the 25 boroughs, and 110 legislative members of the Seoul Metropolitan Council (SMC) have been elected since 1995 (SDI 2007). They have 4-year terms and can be re-elected. The boroughs are governmental subunits of the SMG.

2.2.3 The 25 Boroughs

The boroughs are grouped into five larger Seoul subareas; 1) Southwestern area, 2) Southeastern area, 3) Central area, 4) Northwestern area, and 5) Northeastern area. More importantly, overall Seoul is divided into two major regions: Kangnam\textsuperscript{10} and Kangbuk\textsuperscript{11}. Kangbuk is the historic area of the city, and with its 600-year existence is symbolically the center of the government of the nation. The Southwestern and Southeastern areas belong to the Kangnam region, and the remaining three areas are in the Kangbuk region. Kangnam is well known for being a newly developed region with systematic planning.

\textsuperscript{10} The area is south of the Han-River.

\textsuperscript{11} The area is north of the Han-River.
Figure 2.1  Map of Seoul

Source: The Official Website of SMG 2012

The average population of the boroughs is 400,000, ranging from 140,000 to 690,000. The Central area is the central business district (CBD), with minimal dwelling space and a small population in comparison to other areas. The boroughs of the Southeastern area have the greatest ability to manage their own administrative works and projects without subsidies from the SMG and national government. This area was planned and developed from the mid 1970s to the early 1980s. Boroughs of the Central area also have higher economic capacity because of tax revenue from the CBD. The e-governance websites of the 25 boroughs have almost the same design as
e-Seoul. All borough websites can link with other agencies and e-Seoul on their own main page.

2.3 E-Seoul Development

E-Seoul’s launch in the late 1990s by the Seoul Metropolitan Government (SMG) had the aim of establishing a system that was efficient, competitive, and of high-quality (www.seoul.go.kr). When e-Seoul was initiated, it contained an e-Seoul master plan, the network construction, and the initial stages of the Seoul Data Center.

E-Seoul provided only administrative information for its citizens in the initial stage, from 1999 to 2002. During this period, it basically was an intranet system for government officials. In 2003, the SMG adopted the Information Seoul Master Plan (SMG 2005). At this time, e-Seoul was recognized as a development model at the domestic and global level. In 2006, SMG established the Ubiquitous Master Plan. It proposed to further compress time and space. The paradigm was shifted from electronic to ubiquitous and began to consider projects based on mobile circumstances. In 2011, the SMG initiated the Smart Seoul 2015 Plan. It integrated administration and e-governance within websites using a smart paradigm (SMG 2011). E-Seoul now spans Social Network Service (SNS) and other social media territory (Byun & Choi 2011). This convergence model brings about increased participation and usage of e-governance content. Table 2.6 describes specific development features in each stage, drawn from Noh (2007) and governmental materials.
<table>
<thead>
<tr>
<th>Stages</th>
<th>Major Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Stage:</td>
<td></td>
</tr>
<tr>
<td>Information Seoul Basic Plan</td>
<td>• Information based governance</td>
</tr>
<tr>
<td>Late 1990s-2002</td>
<td>• Initial stage for e-governance</td>
</tr>
<tr>
<td></td>
<td>• Launching “Appeal to Mayor” website</td>
</tr>
<tr>
<td></td>
<td>• Intranet to Internet governance</td>
</tr>
<tr>
<td></td>
<td>• Paperless/Internet administration</td>
</tr>
<tr>
<td></td>
<td>• Internal efficiency through ICTs</td>
</tr>
<tr>
<td>2nd Stage:</td>
<td></td>
</tr>
<tr>
<td>Information Seoul Master Plan</td>
<td>• Two-way communication governance</td>
</tr>
<tr>
<td>2002-2006</td>
<td>• Starting total service provision</td>
</tr>
<tr>
<td></td>
<td>• Building a portal site</td>
</tr>
<tr>
<td></td>
<td>• Launching registration/certificate service</td>
</tr>
<tr>
<td></td>
<td>• Launching e-tax payment service</td>
</tr>
<tr>
<td></td>
<td>• High performance e-government</td>
</tr>
<tr>
<td></td>
<td>• Link related websites</td>
</tr>
<tr>
<td>3rd Stage:</td>
<td></td>
</tr>
<tr>
<td>Ubiquitous Seoul Master Plan</td>
<td>• Driven participatory governance</td>
</tr>
<tr>
<td>2006-2010</td>
<td>• Starting initial mobile contents</td>
</tr>
<tr>
<td></td>
<td>• Launching the “Imagination” website</td>
</tr>
<tr>
<td></td>
<td>• Launching UCC website</td>
</tr>
<tr>
<td></td>
<td>• Participants as policy subjects</td>
</tr>
<tr>
<td>4th Stage:</td>
<td></td>
</tr>
<tr>
<td>Smart Seoul Plan 2015</td>
<td>• Participatory and Ubiquitous governance</td>
</tr>
<tr>
<td>2011 – the present</td>
<td>• Lifetime based e-service</td>
</tr>
<tr>
<td></td>
<td>• Policy forum between government and citizens</td>
</tr>
<tr>
<td></td>
<td>• Link with other off-line service simultaneously</td>
</tr>
<tr>
<td></td>
<td>• Usual participation via SNS service</td>
</tr>
<tr>
<td></td>
<td>• Real-time involvement</td>
</tr>
</tbody>
</table>

Source: Adopted from Roh (2007)
2.3.1 Roles of Mayors

Political leadership is an important element for successful management and development of the e-governance system. As reviewed in the history of e-Seoul, the success of the e-governance website is based in important ways on political leadership. The e-governance website offers an easy and inexpensive communication tool between citizens and politicians. The mayor, as a municipal executive, has the responsibility of improving public service and fostering a citizen-centered administrative environment (www.seoul.go.kr/mission). In recent years, the mayors of Seoul have developed and devoted much attention and resources to this system.

In 1998, Mayor Koh Geon was elected and his e-governance policy mirrored that of the national government at the time. Mayor Koh concentrated on the construction of infrastructure. In the 1990s, the Korean central government oversaw national information system projects and constructed electronic connection systems between governmental agencies for improved administrative efficiency. At the time, the e-Seoul system was set up by the 'Information Basic Plan', which emphasized an internal linkage system within and among governmental agencies to promote administrative efficiencies. Koh also supported the construction of the websites of 25 boroughs and the Seoul Data Center. At this stage, e-Seoul structured a basic information provision system. Internet cable networks were set up in the late 1990s. The e-governance website featured an organizational chart, personnel, and information about the mayor (Choh 2009; Kim 2004; Eom 2010; SMG 2012).

In June 2002, Mayor Lee Myongbak became the new leader of the SMG. Mayor Lee, who served in office from 2002-2006, continued constructing the infrastructure and improving the stability of the e-governance website of Seoul. Most service and information provision categories were made in this period, which saw
extensive development of the infrastructure in Seoul. E-Seoul and the 25 boroughs' systems were stabilized in this period in accordance with national agendas (Kim 2004). With future election campaigns in mind, Mayor Lee showcased various projects for advertising his achievements to citizens; his top-down leadership influenced the quick completion and high performance of the e-Seoul system. The SMG sought to enhance its e-governance system with a portal website that included information and service provision and space for citizen participation. For high quality service and information, the Department of Information Planning (DIP) was launched, which contributed to the systematic management of e-Seoul. E-Seoul's portal website added a general information section with detailed search tools that included a tourism and transportation menu. Other Korean municipalities benchmarked the e-Seoul system, and it was selected the world's best city e-governance system in 2003 and 2005. From a social context, the Internet was already fundamental to work and entertainment at this time. After his term as mayor of Seoul, Lee was elected the President of Korea in December 2007.

In June 2006, Oh Sehoon was elected mayor of Seoul. He was with the same political party as former Mayor Lee and shared almost all of the same councilmen and 25 borough mayors. Mayor Oh served from 2006-2011. His leadership on the e-governance website gave particular attention to policies concerning communicative relationship with citizens. In his term, the e-Seoul website was selected as the world’s best municipal e-governance system again in 2007 and 2009. On the subject of information provision, e-Seoul integrated fragmented information systems that were operated by central and local governments and their sub-agencies (Kang 2009). One-click information searching was available in the e-
Seoul system and linked to Dasan 120 call centers that deal with integrated online and offline customer service for all citizens. Citizens can also share and consult their needs or requests with other offline agencies, such as the Dasan Call Center or City Hall.

"Dial 120 Dasan Center" is an integrated call and Internet service center for citizens. This center’s roles include providing answers to questions, guidance, specific information, and services.

Citizens were able to get extensive and customized information, such as administrative, tourism, living, childcare, and welfare information, from the e-Seoul system. Furthermore, Mobile Seoul (m-Seoul) was created to allow citizens to utilize the e-governance system more easily with mobile devices. The DIP became an integral part of e-governance during this time. Mayor Oh also actively supported and participated in the Imagination Board website project and monitored its performance throughout his term (Oh and Kim 2012). Though a limited number of citizens’ policy suggestions were approved during his term, they did have his strong support. Some evaluated these achievements in a negative light, seeing it as merely a display of public relations; however, it is widely viewed that he constructed a foundation for participation via the Internet (Hwang 2012).

Mayor Oh was re-elected in June 2010. However, he resigned in 2011 due to failure to get a referendum passed that he supported. Following Oh’s resignation, Park Wonsoon was elected mayor and was the first Non-Governmental Organization (NGO) leader to gain a high office in Korean politics. Many people and civic groups supported him using SNS services and the Internet during the election campaign. He led the change in the website interface to a Wordpress-based system, which expanded the e-governance website system by merging SNS integration and allowed for multiple
users' participation in governmental websites. This system proved very useful in including other resources in e-governance activities. In particular, the reach of mobile and smartphone based e-governance applications were extended during his term. His horizontal leadership embraced both organizations and citizens in the e-governance system and Social Network Services (SNS). The connection to the SMG via SNS increased dramatically after his election. This has included e-Seoul links to Facebook, Twitter, Me2day, and other major portal websites. Citizens can participate in government through SNS at high speeds and without time-space limitations.

According to the SMG (2012), the daily connected users via SNS increased from 2% in 2010 to 14% in 2011, which is likely the direct result of the technological advancement in connection capabilities with SNS and greater expectations from citizens for the new mayoral leadership.

Table 2.7  Mayors’ E-governance Styles

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiatives by Mayors</td>
<td>-Basic formation</td>
<td>-Portal website construction</td>
<td>-Mobile service</td>
<td>-Ubiquitous system</td>
</tr>
<tr>
<td></td>
<td>-Introduction to</td>
<td>-Sectional information</td>
<td>-Integrated</td>
<td>-Using SNS on e-Seoul</td>
</tr>
<tr>
<td></td>
<td>organization and</td>
<td>-Launching Information</td>
<td>-Dasan Center</td>
<td>system</td>
</tr>
<tr>
<td></td>
<td>mayor’s info</td>
<td>Management Bureau</td>
<td>linkage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Appeal to Mayor</td>
<td></td>
<td>-Customized</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>service open</td>
<td></td>
</tr>
</tbody>
</table>

Source: Rearrangement of Data from SMG Official Report
2.4 Current Status of E-Seoul

2.4.1 General Description

The SMG’s “Department of Information and Planning (DIP)” has basic responsibility for e-Seoul. This department is composed of 5 sub-departments, 25 teams, and 1 task force center. The personnel for e-governance constitute 127 employees in 2013. In addition, 25 boroughs have their own workers. The total budget of the e-government operation was approximately 110 million USD in 2011. The e-government of Seoul provides 218 homepages in three major languages: Korean, English, and Chinese (SMG 2012).

The official website of the SMG (2012) expresses the goals of providing 1) useful information delivery to citizens, 2) one-click quick service transactions for citizens, and 3) an easier method for citizen involvement in administrative works. Thus, the e-government of Seoul can be divided into three broad categories, each with their own dedicated areas on the main page of the e-Seoul website: information, public service provision, and citizen participation. The information area is composed of news regarding policymaking and management, information about transportation and tourism, and general information about the city. The service provision portion consists of online tax payment, documents, and reservations, among other services. The citizen participation area on the e-Seoul website includes links to where citizens can appeal to the city mayor and submit online policy suggestions through the “Imagination Board”. Furthermore, the main page links with the 25 borough departments’ homepages, the Seoul Data Center (SDC), and other multimedia sources.

Table 2.8 below outlines the content of the site map of e-Seoul as of May 2013. Information provision can be divided into 22 major categories. Public service
provision can be divided into 4 major categories. Furthermore, approximately 300 services can be customized for citizens. E-Seoul has also provided linkage services with blogs and other SNS accounts.

Table 2.8  Content Detail by Category

<table>
<thead>
<tr>
<th>Classification</th>
<th>Detailed Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>Major policy descriptions, Administrative information, Performance index, Transparent budgeting, Public announcement of financial information, Budgeting, Statistics, Administrative archive, Hi-Seoul news, New announcement, Official release, Mass-communication, Gazette, Monthly magazine, Mayor’s office, History of Seoul, Images of Seoul, Organizational chart, Tourism, Alert, Sectional Information, Open Data Square</td>
</tr>
<tr>
<td>Public Service</td>
<td>Petition request, Search and results, Tax payment, General administrative and certificate services, Reservation</td>
</tr>
<tr>
<td>Citizen Participation</td>
<td>Appeal to Mayor, Imagination Board, SNS linkage</td>
</tr>
</tbody>
</table>

Source: The main page of SMG Official website in July 2013

A total of 6 of these information categories are posted in the main page of the e-Seoul website. The largest section is the tourism section which provides the history and tour information for Seoul. The alert information section is also posted on the main page. It includes changes in transportation, and flood and air pollutant information. Lastly, administrative information provides useful sources of information, which include the land use portal data and an official city guide. All of the information menus help citizens get accurate and detailed information about administration and living from official sources.
Since 2002, e-Seoul has provided foreign language services for users. In its initial stage, the given information only provided an introduction and a basic description of Seoul. It now has considerable information and services that foreigners can utilize. E-Seoul has content that is available on Facebook and other global portal websites in English, Japanese, Mandarin, and Cantonese. It is divided into four categories: 1) “Get to Know Us”, 2) “Come and Visit”, 3) “Do Business”, and 4) “Live in Seoul.” The first section provides information about Seoul's history, geographic information, and statistics. It describes Seoul's scenery, historic information, Mayor's office and administrative information, and news and e-mailing service. The “Come and Visit” section has tourism information, composed of pictures and video clips. Visitors and tourists can access customized information regarding attractions, events and activities, shopping, dining out, accommodations, and transportation services.

E-Seoul also provides information for businesses in Korean and English. This section includes business registration, law, regulation, and certificate information. Seoul's hub vision, new growth engines, investment projects, and investing information are provided through the e-governance website.

“Live in Seoul” has information for foreigners who live in Seoul, divided into eight sections. These sections are support centers, residences, work, education, leisure, medical services, community, and help centers. It also links to other departments and agencies.

E-Seoul developed the world's first subway-based cable line system which has helped reduce construction costs (SMG 2009; WEEC 2010). E-Seoul Net is
operated by the e-Seoul Network Operating Center 24 hours a day and 7 days a week. The system integrates both wired and wireless networks (Byun & Choi 2011).

2.4.2 E-Seoul Users

Table 2.9 displays the total visitors by year and average daily visitors from 2005 to 2010. The e-Seoul system reported a record-high visitor count in 2005, and has maintained a rate of approximately 130,000 visitors per day. As indicated in Table 2.9, e-Seoul visitors have decreased every year from 2005 to 2008\(^1\), and increased slightly from 2009 to 2010. More accurately, actual site log time has increased every year (SMG 2012); however, bypass users via portal websites such as Google and Naver\(^2\) are not included in usual statistics and data collection.

Table 2.9 Visitors on E-Seoul Website 2005 through 2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Average a day</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>67,993,945</td>
<td>185,737</td>
</tr>
<tr>
<td>2006</td>
<td>61,149,016</td>
<td>167,531</td>
</tr>
<tr>
<td>2007</td>
<td>47,461,616</td>
<td>130,031</td>
</tr>
<tr>
<td>2008</td>
<td>46,715,531</td>
<td>127,638</td>
</tr>
<tr>
<td>2009</td>
<td>48,061,192</td>
<td>131,217</td>
</tr>
<tr>
<td>2010</td>
<td>48,938,105</td>
<td>137,077</td>
</tr>
</tbody>
</table>

Source: the Official Statistics of Seoul 2011

\(^1\) Bypass users via portal websites are not calculated in this data. During this period the bypass users were increased rather than direct connecting to the e-Seoul.

\(^2\) Google is the world largest portal engine for Internet Searching. Naver is the largest Korean portal website.
SMG conducted a user survey in e-Seoul system in 2011 that was designed to collect users' data and opinions on the website use in terms of frequency, preference, and satisfaction. SMG's Department of Information and Planning (DIP) designed the survey. The sample used 365 participants who were registered e-Seoul users and online.

According to survey data from the SMG (2011), 69.7% of the sample connected at least once a month to Seoul's e-governance website, and 36% of respondents used the website at least once a week, stated in Table 2.10 below.

Information provision makes up the largest portion of the website, and information content is the most frequently used and popular section of the site. 58.6% of those surveyed answered that they utilize e-Seoul's information content. Furthermore, 84.4% of citizens were satisfied with the site's usability (SMG 2011).

Table 2.10  E-Seoul Website Use Frequency in 2011 by Demographics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Once a day</th>
<th>1-2 a week</th>
<th>3-4 a week</th>
<th>Once a two weeks</th>
<th>Once a month</th>
<th>Lesser than once a month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>365</td>
<td>17.5</td>
<td>12.1</td>
<td>9.3</td>
<td>13.7</td>
<td>20.3</td>
<td>27.2</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seoul</td>
<td>198</td>
<td>25.3</td>
<td>14.1</td>
<td>11.1</td>
<td>13.6</td>
<td>17.2</td>
<td>18.6</td>
</tr>
<tr>
<td>Kyunggi and Incheon</td>
<td>95</td>
<td>10.5</td>
<td>10.5</td>
<td>7.4</td>
<td>14.7</td>
<td>25.3</td>
<td>31.5</td>
</tr>
<tr>
<td>Others</td>
<td>72</td>
<td>5.6</td>
<td>8.3</td>
<td>6.9</td>
<td>12.5</td>
<td>22.2</td>
<td>44.5</td>
</tr>
</tbody>
</table>

Source: User Survey of E-Seoul in 2011 by the DIP in SMG

The following chapters will examine three significant dimensions of E-Seoul: information, service, and citizen participation. These dimensions of e-Seoul are
important to its high international ranking but have collectively received limited
detailed examination in the literature.

The purpose of the next chapter, then, is to examine the evolution and
current status of information and service provision in e-Seoul.
Chapter 3

INFORMATION AND SERVICE DIMENSIONS OF E-SEOUL

E-governance aims to provide appropriate information and prompt service for citizens (UN 2002; WEEC 2009; SMG 2011). In addition, it promotes citizen involvement in governance processes using ICT (WEEC 2012). These are three of the main elements of formal e-governance, and they also relate to promoting citizen participation in the institutional dimensions of urban government via the Internet. E-Seoul provides approximately 170 related websites and 680 public services via the official website, and more than 2,000 types of information are available to citizens (SMG 2011). Using information and service provision via e-governance can facilitate citizens to more easily participate in the policymaking process (Gartner 2006; Rhodes 1997). Four major categories of citizen participatory menus have been provided via the website for enhancing citizen involvement in policymaking: 1) Cyber Forum, 2) Appeal to the Mayor, 3) Imagination Board, and 4) SNS.

For over a decade, Seoul’s e-governance website has been developing user-oriented information, services, and participatory features that are personalized and customized for citizens. Recognizing that limited research is available on these dimensions of e-Seoul, the focus here is on the current status of information and service provision, a description of the participatory modes, and an overall evaluation by a sample of users of the basic dimensions of e-Seoul. Three major data sets are used in this chapter: 1) website content analysis, and 2) SMG’s internal materials and 3) log-file analysis.
And then, how is the e-Seoul use by citizens? Most recent data was collected by SMG in 2011. According to SMG’s log-file analysis in 2011, 81% of users accessed the e-Seoul website’s information content at least once (See Figure 3.1 below). This is a much greater percentage than for those who accessed services (11%) or participated directly (8%).

![Figure 3.1 Seoul’s E-governance Website Usage in 2011](image)

Source: Log-file analysis in 2011 by the DIP in SMG

3.1 Information Provision of E-Seoul

The e-Seoul information system is set up as a portal website. It links directly to both national and borough websites. Initially, information provision was based on a one-way or government-driven information process. In the early 2000s, e-Seoul websites were composed of limited information about the mayor and brief descriptions of the city and its services. According to SMG (2012), the initial stage of
e-Seoul provided only 30 informational topics. The present e-governance website, however, has evolved to provide more extensive information in a more participatory manner. The e-Seoul system applies an integrated and flexible system that releases information to citizens and can respond to further citizen questions.

Prior to e-Seoul, for example, SMG finance and budgeting data were only available to citizens in printed form. The budget and archival data were legally open to the public, but only a few users accessed this information. The Seoul Metropolitan Council approved an ordinance for open public administrative information in 2009 (SMG 2009). It confirmed citizens' right to know and is intended to foster participation in policy and decision-making. Most materials and official records must now be provided online, and the SMG has sought to extend this public openness to all parts of its administration.

Current mayor, Park Wonsoon, has supported public openness regarding the SMG’s performance and administrative information for citizens in order to maximize transparency and trust between the government and its citizens. SMG aims at building a system in which all official documents will be released to the public (SMG 2013).

This is reflected in government budgeting. Seoul and its boroughs had an approximate 2.5 billion dollar budget in 2011 (SMG 2012). Citizens are now able to access SMG and the borough data by general and special accounts. E-Seoul provides the SMG's financial operation and management data through a public finance menu including budgetary execution, accounts, and special added budget items. If a citizen clicks on a particular SMG organization or project, its finance information automatically appears by fiscal year or a project index is provided.
This section looks at the basic information e-Seoul provides and different rates of use. SMG log-file data from 2011 was used and contained data on the usage of various types of information in terms of total hits and total visitors. DIP and Seoul Data Center (SDC) data were drawn upon for identifying user patterns.

Information sites on e-Seoul have four major sections: “SMG News”, “Administrative Information”, “About Seoul”, and “Sectional Information.” They are located on the main page of the e-Seoul website.

![Figure 3.2 Seoul’s E-governance Website Information Usage in 2011 – Percentage of Total Hits](image)

Figure 3.2 Seoul’s E-governance Website Information Usage in 2011 – Percentage of Total Hits

Source: Log-file analysis in 2011 by the DIP in SMG

A total of 3,187,525 hits were recorded in 2011 for all information sections (SMG 2012). As indicated in Figure 3.2, SMG News (55.1%) was used most frequently, with 1,756,664 hits in 2011. SMG News offers a type of municipal news gazette for citizens and a place where official announcements are made. SMG News
may present the SMG views on matters of controversy. Furthermore, it provides personnel change and recruiting information for SMG and boroughs.

In terms of content, Administrative Information (22.7%) has finance and project processes and results data. According to the log-file analysis, a total 723,871 hits were recorded in 2011. It is e-Seoul’s role to release official announcements covering which polices and projects are approved and started. Administrative Information is intended to produce openness for SMG’s administrative processes. This provides information organized in the following 11 categories provided by bureaus and departments in charge: 1) welfare, 2) women, 3) economy, 4) security, 5) housing, 6) environment, 7) culture, 8) health, 9) transportation, 10) finance, and 11) community. These have 328 specific items. In particular, Administrative Information provides data concerning official finances and budget management of the SMG.

The “About Seoul” section had 11.3% of all hits related to information, totaling 359,097, in 2011. It is composed of organizational charts, an explanation of symbols in Seoul, a brief history of Seoul, and a description of its geography. This section provides core information to help visitors quickly understand Seoul. Each part has sub-sections providing simple but useful basic information about Seoul in both governmental processes and related background information.

Sectional Information relates to government service and programs that citizens can use. Though this section only made up 347,898 (10.9%) of all hits in 2011, it is an important part of e-Seoul’s information provision. This menu had drastically increased its total hits by citizens 2.7 millions in 2013 and 3.2 millions in 2014.

It contains information about a range of available services, programs, and resources, and it is linked to other government websites. Specific categorized
information is released to citizens in this section. In addition, this information section is connected to public service and citizen participation menus. Sectional Information is composed of: 1) transportation, 2) culture, 3) welfare, 4) economy, 5) environment, and 6) intelligence and education.

Table 3.1 Sectional Information Categories as of January 2012

<table>
<thead>
<tr>
<th>Category</th>
<th>Types of Information by Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>Library information and support</td>
</tr>
<tr>
<td></td>
<td>Seoul Tourist Center</td>
</tr>
<tr>
<td></td>
<td>Integrated website for life-time physical education</td>
</tr>
<tr>
<td></td>
<td>Design Seoul Center information</td>
</tr>
<tr>
<td></td>
<td>Seoul tour map</td>
</tr>
<tr>
<td></td>
<td>Free concerts and exhibitions guide</td>
</tr>
<tr>
<td></td>
<td>E-Tour center portal</td>
</tr>
<tr>
<td></td>
<td>Seoul Best 100 places</td>
</tr>
<tr>
<td></td>
<td>Portal system for culture and tourism</td>
</tr>
<tr>
<td>Economy</td>
<td>Job training and matching for citizens</td>
</tr>
<tr>
<td></td>
<td>Social company information and support</td>
</tr>
<tr>
<td></td>
<td>Small business information</td>
</tr>
<tr>
<td></td>
<td>Job search and information</td>
</tr>
<tr>
<td></td>
<td>International economic relationship</td>
</tr>
<tr>
<td></td>
<td>Portal information for tax and finances</td>
</tr>
<tr>
<td></td>
<td>Transparent budgeting system</td>
</tr>
<tr>
<td></td>
<td>E-tax portal system</td>
</tr>
<tr>
<td></td>
<td>Bidding and order information</td>
</tr>
<tr>
<td></td>
<td>Public contract portal system</td>
</tr>
<tr>
<td></td>
<td>Total budgeting and formal discharge</td>
</tr>
<tr>
<td></td>
<td>Land use plan</td>
</tr>
<tr>
<td></td>
<td>Urban planning department links</td>
</tr>
<tr>
<td></td>
<td>Hi Seoul eco-friendly farmers market</td>
</tr>
<tr>
<td>Environment</td>
<td>Seoul job plus center</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Appraised value of land / property</td>
<td></td>
</tr>
<tr>
<td>Land use and property information</td>
<td></td>
</tr>
<tr>
<td>Legal consultation and tutorial</td>
<td></td>
</tr>
<tr>
<td>Housing and revitalization information</td>
<td></td>
</tr>
<tr>
<td>Lease support and information for citizens</td>
<td></td>
</tr>
<tr>
<td>Law and restriction guide for property</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>Park and sustainable environment</td>
</tr>
<tr>
<td>Statistics for environment</td>
<td></td>
</tr>
<tr>
<td>Live camera broadcast in green area</td>
<td></td>
</tr>
<tr>
<td>Water supply facility information/service</td>
<td></td>
</tr>
<tr>
<td>Citizen campaign for environmental preservation</td>
<td></td>
</tr>
<tr>
<td>Infrastructure and social overhead capital</td>
<td></td>
</tr>
<tr>
<td>Monitoring for urban architecture</td>
<td></td>
</tr>
<tr>
<td>Inconvenience report for construction</td>
<td></td>
</tr>
<tr>
<td>Legal support and information</td>
<td></td>
</tr>
<tr>
<td>Environment department link</td>
<td></td>
</tr>
<tr>
<td>Real-time air pollution information</td>
<td></td>
</tr>
<tr>
<td>Green urban department link</td>
<td></td>
</tr>
<tr>
<td>Eco-mileage</td>
<td></td>
</tr>
<tr>
<td>Recycling information</td>
<td></td>
</tr>
<tr>
<td>Intelligence and Education</td>
<td>General project management system</td>
</tr>
<tr>
<td></td>
<td>Legal and administrative information</td>
</tr>
<tr>
<td></td>
<td>Public open information system</td>
</tr>
<tr>
<td></td>
<td>Statistics of Seoul</td>
</tr>
<tr>
<td></td>
<td>ICT support and information system</td>
</tr>
<tr>
<td></td>
<td>Community development information</td>
</tr>
<tr>
<td></td>
<td>Life-long education information for citizens</td>
</tr>
<tr>
<td></td>
<td>Free computer education information</td>
</tr>
<tr>
<td></td>
<td>Information intelligence education</td>
</tr>
<tr>
<td></td>
<td>Citizen Internet classes</td>
</tr>
<tr>
<td></td>
<td>Seoul virtual map for educative purpose</td>
</tr>
</tbody>
</table>
### Transportation
- Seoul Transportation Portal
- Portal system for bicycle and pedestrians
- Bus and subway support and information
- Surveillance for transportation
- Real-time route information on public transportation
- Lost and found for bus and subway
- Transportation claim center
- Urban traffic real-time information
- Real-time bus information
- Bus route guide
- Signal information

### Welfare
- Welfare facilities navigation
- Disabled integrated homepage
- Standard for citizens' welfare as a guideline
- Women, child care, family, and juveniles
- Immigrant women and domestic violence
- Seoul Child Care Center information
- Children and juvenile facility information
- Total health care and information system
- Emergency 1339 system
- Health knowledge system
- Food and sanitization information
- Request guide for health care system
- Urban security and emergency preparation
- Information for disasters
- Civil defense system information
- E-security system
- Emergency information
- Female job information
- Childbirth / nursing support
- Welfare and health center link
- Senior job information
- Female education information

Source: Rearranging and Editing from the Official Announcement in the SMG Website 2012
Figure 3.3 shows the 347,898 total hits from 2011 broken down into each of the six Sectional Information categories. Three of the categories had over 80,000 hits, with transportation, culture, and welfare with 24.3%, 23.9% and 23.5% of the total, respectively.

![Sectional Information Category User Rates in 2011](image)

Figure 3.3  **Sectional Information Category User Rates in 2011**

Source: Log-file analysis in 2011 by the DIP in SMG

Table 3.2 below ranks the top 5 topics used among the six Sectional Information options in 2011. Identifying the top 5 topics in each category is useful to better understand citizens’ use and needs within the e-Seoul system.
Eight Sectional Information sub-categories had over 10,000 total hits in 2011. More specifically, the transportation claim center\(^{14}\) had the highest, with 21,002 hits, followed by the Seoul Tour Map, free concerts and exhibitions, real-time urban traffic information, real-time bus information, e-tour center, Seoul best 100, and the bus route guide.

---

### Table 3.2 Top 5 Visited Contents within E-Seoul Sectional Information, 2011

<table>
<thead>
<tr>
<th>Category</th>
<th>Ranking</th>
<th>Contents</th>
<th>Total hits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Culture</strong></td>
<td>1</td>
<td>Seoul tour map</td>
<td>15,844</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Free concerts and exhibitions</td>
<td>14,699</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>e-tour center</td>
<td>13,042</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Seoul best 100</td>
<td>12,041</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Culture and tourism</td>
<td>9,493</td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td>1</td>
<td>Land use plan</td>
<td>6,726</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Urban planning department</td>
<td>5,412</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Hi Seoul eco-friendly farmers market</td>
<td>4,724</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Seoul job plus center</td>
<td>4,354</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Appraised value of land</td>
<td>4,235</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>1</td>
<td>Environment department</td>
<td>6,429</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Real-time air pollution information</td>
<td>3,559</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Green urban department</td>
<td>3,467</td>
</tr>
</tbody>
</table>

\(^{14}\) Citizens can claim a parking and speed limit penalty on this site and wait the reconsideration from the related department of SMG.
| Source: Log-file analysis in 2011 by the DIP in SMG |

E-Seoul has offered appropriate information for citizens based on accurate and need-oriented contents. Recently, the information content expanded with new emerging technologies. The e-Seoul website also provides a variety of important geographic information bridging administrative services. It is divided into three broad categories of geographic information, statistical service, and GIS education. As indicated in Figure 3.4, this portal includes map searching, theme mapmaking, and GIS learning (SDI 2010; SMG 2012).
As part of a future strategy, e-Seoul has been developing a number of information and service links for citizens. Recently, e-Seoul added two significant information dimensions to the website, the Seoul Public Library System (SPLS) and Seoul Statistics (SS).

SPLS is an integrated system including 890 public and private libraries in the Seoul area, and it was launched in 2012. This system offers all book archives and circulation availability information for citizens. Furthermore, it provides all Seoul-related documents or materials circulating via the website.

Seoul Statistics provides citizens with statistical information divided into 16 sections. This system launched in 2006, but it was totally renewed in 2012 with

15 It includes: 1) demographics, 2) economy, 3) industry, 4) culture, 5) welfare, 6) women, 7) environment, 8) housing, 9) transportation, 10) education, 11) public health, 12) security, 13) ICT, 14) administration, 15) Seoul Statistics Year Book, and 16) Seoul Survey.
customized and systemic divided sections. This system aims at providing information to not only professionals and college students but also citizens who want to better understand Seoul.

Thus, citizens can connect to an array of information from governmental resources via e-Seoul. Information provision is based on sharing data. Service provision relates to citizens with specific needs and demands. Next, public service provision of e-Seoul will be examined through its categories and usage.

3.2 Service Provision of E-Seoul

In addition to visiting its physical offices, the SMG provides citizens the opportunity to obtain services through e-Seoul. Launched in 2002, e-Seoul has sought to improve its Internet-based services and methods of delivering them since then. The SMG modified its service provision system in 2008 by shifting to a more citizen-centered, cost-effective, and manageable approach (SMG 2011). The current service provision of e-Seoul can be broken down into 680 specific services with 170 related websites (SMG 2012). According to SMG (2012), approximately 2 million service hits were made by citizens in 2011.

In a broad sense, e-Seoul services can be viewed as having six major parts that are most used. As of December 2011, these included; 1) Request Portal, 2) Internet Request, 3) Taxes, 4) Integrated Reservation, 5) Transportation Service, and 6) Real Property Service, as indicated in Table 3.3.

Request Portal is the largest category, and all requests are dealt with on the website through direct action. In addition, the Request Portal connects to 15 national government agencies through an integrated service system. It is based on a
personalized login system, which protects individual privacy and raises the reliability and trust in the service.

The purpose of the Internet Request is for direct requests from citizens to the SMG. It is composed of service problems, complaint reports, and sectional service requests. Service problems and complaint reports are concerned with general complaints and problems when using SMG’s public services. Citizens can report and receive responses from SMG regarding uncomfortable experiences. Sectional service requests are concerned with requests following sectional categories within the website from citizens to government. Citizens can make such requests with already prepared forms.

The Tax category includes services via e-Seoul related to tax guidance and search, claims, documents services, and payment. By being able to connect with the National Home Tax (NHT) system, citizens can access all local and national tax services within the e-Seoul system. Since early 2012, citizens can pay their taxes via mobile devices as well.

Using the Integrated Reservations section, citizens can reserve and confirm their use of public facilities via e-Seoul. Reservations for use of the SMG and 25 boroughs’ public facilities and their programs are covered by this category.

Transportation Service covers issues on both pedestrian and vehicle violation claims. This system also allows citizens to pay fines or penalty fees online. E-Seoul manages “Seoul TOPIS”\(^\text{16}\) as an independent website, unifying a variety of transportation services. This website offers services related to all public buses, subway

\(^{16}\) It refers as Seoul Transport Operation and Information Service (TOPIS).
lines, and taxis registered in SMG. Citizens can also appeal traffic regulation or violation issues on TOPIS.

Real Property Service is an e-Seoul site that deals only with land property and land use services for citizens. Furthermore, it provides a price evaluation for land or property in Seoul. The evaluated costs are based on legal and institutional estimates made by national and local governments.

Table 3.3 Current Major E-Seoul Public Services and Their Primary Content as December 2011

<table>
<thead>
<tr>
<th>Major Service Category(^\text{17})</th>
<th>Major Provided Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Portal</td>
<td>. Consulting and notice</td>
</tr>
<tr>
<td></td>
<td>. Free law consulting</td>
</tr>
<tr>
<td></td>
<td>. Certificate services of birth, death, residence, and school graduation</td>
</tr>
<tr>
<td></td>
<td>. Guiding service use</td>
</tr>
<tr>
<td></td>
<td>. Meeting appointment with public officials</td>
</tr>
<tr>
<td></td>
<td>. Dasan dial-120 service</td>
</tr>
<tr>
<td></td>
<td>. FAQ</td>
</tr>
<tr>
<td></td>
<td>. Mobile request</td>
</tr>
</tbody>
</table>

\(^\text{17}\) The order is based on the number of times the sub-services are used.
| Internet Request | Service problems and complains report  
| | Specific service request of transportation, housing, environment, general administration, health care and welfare, culture and industry, urban planning, security, water management, and other unidentified things |
| Tax | Online claim (Claim process/search)  
| | FAQ  
| | Examples about tax process  
| | Downloading document  
| | Request for statement  
| | Payment |
| Integrated Reservation | FAQ about public space and facilities: Integrated reservation of education programs, athletic facilities, rental space, performance halls, and special programs |
| Transportation Service | Seoul Transport Operation Information Service (TOPIS)  
| | Check-up traffic violations and claims  
| | FAQ  
| | Payment |
| Real Property Service | Land property certificate  
| | Land use evaluation |
The three service categories most frequently used in 2010 were 1) Internet Requests (16%), 2) Integrated Reservations (16%), and Taxes (11%). The Internet Request Category had 577,344 total hits in 2010 as indicated Table 3.4 (SMG 2011). This system launched in 2004. The Internet Request category provides a way for citizens who are inconvenienced by red tape-related administrative processes to submit a claim online (SMG 2013). Using sectional service requests, citizens can find and ask the appropriate service categories in SMG via the Internet.

Table 3.4 Internet Request System 2010

<table>
<thead>
<tr>
<th>Total</th>
<th>Service problems and complaints report</th>
<th>Specific service request</th>
</tr>
</thead>
<tbody>
<tr>
<td>577,344</td>
<td>539,672 (93.5%)</td>
<td>37,672 (6.5%)</td>
</tr>
</tbody>
</table>

Source: Official Report by Information System and Planning Bureau 2011

Among all hits in this category, 93.5% were concerned with service problems and complaint reports related to inconveniences in administrative processes and consultation on legal rights. The other 6.5% were concerned with specific service requests. Once a petition is received, the responsible department examines the issue in relation to the law, regulations, and internal priorities. Officials provide responses to
the citizen to report on the process and results of their requests. Official responses are delivered to citizens via an e-mailing service\(^{18}\).

Recent uses of Internet Request are reduced from 2010. Table 3.5 shows the recent four years usage of the Internet Requests but is not broken down between problems and complaints and service requests as is the earlier data.

Table 3.5  Internet Request Visitors from 2011 to 2014

<table>
<thead>
<tr>
<th>Total</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,100,291</td>
<td>385,860</td>
<td>197,504</td>
<td>253,503</td>
<td>263,424</td>
</tr>
</tbody>
</table>

Source: Internal Report by New Medial Team 2015

E-Seoul manages an "Integrated Reservation Service" (IRS) for citizens in the city and 25 boroughs for program and facility reservations. The total hits it had in 2010 were approximately 580,000, including 157,171 for making reservations. The other hits were check-ups, questions and answers, and confirmations. E-Seoul users who want to reserve a service can do so for approximately 540 public facilities and programs. These include athletic and performance facilities and education programs that are provided by the SMG and related agencies. In recently, Reservation system marked 1,100,388 total hits in 2014.

\(^{18}\) Feedback delivery is also available via postal mail to a residential address if a citizen wants to receive it that way.
In 2002, e-Seoul's initial reservation system was launched. In 2010, the SMG revamped it to include 25 borough websites and other governmental agencies. Table 3.6 above shows the total results of reservations in 2010. As indicated, approximately 45% were for athletic facilities, and 40% were related to education programs reservations. Athletic facilities reservations included such things as playgrounds and equipment. Education program covered all education facilities on the Internet as well as on-site educational programs provided by the SMG and 25 boroughs’ 47 libraries, 44 cultural centers, and 51 welfare centers. Besides these two major categories, the three other reservation services involve special programs (9.1%), performance halls (3.7%), and rental space (1.7%). Special programs include individual lectures, exhibitions, concerts, and performances. Performance hall reservation covers both ticket purchase and free reservations for citizens. Citizens can make reservations for public meeting rooms, wedding ceremony space, and academic conference rooms via the rental space reservation service.

19 This includes conference rooms, study rooms, and park facilities.
The Tax category recorded approximately 350,000 hits in 2010. SMG provides tax services that are divided into three major categories: 1) tax information, 2) tax payment, and 3) tax claims online. E-Seoul has set up a unified tax payment system, accompanied by links to major banks. Online tax payment can be a more convenient method of paying taxes that can save time and costs for both the government and citizens. According to SMG (2008; 2012), tax related information was mainly used by citizens in the initial stage of tax service. After being established, tax payment and Internet claims categories grew rapidly. In particular, Tax Payment Service uses increased from 22.2% in 2008 to 48.6% in 2011 among all tax-related services (SMG 2008; 2012).

Recent data show the tax payment via SMG website had grown to 4.5 millions in 2014 as shown Table 3.7. This e-tax system was changed in the late 2010 so that non-registered members can pay and check up their local taxes via the system with Social Security Number.

<table>
<thead>
<tr>
<th>Total</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,992,252</td>
<td>4,155,385</td>
<td>4,195,715</td>
<td>4,235,227</td>
<td>4,405,925</td>
</tr>
</tbody>
</table>

Source: Internal Report by New Medial Team 2015

This service was initiated in 2004; however, the present state of the service was set up after major e-Seoul modifications in 2008, making it possible to integrate with the National Home Tax Service (SMG 2010). E-Seoul tax services
include paying local property tax, property acquisition tax, and income tax at one integrated site. Borough tax services also cooperate with the SMG tax service via e-Seoul. Tax-related services are also available on “Mobile Seoul”, including payment and claims.

Citizens can check and confirm their tax bills here and raise any objections they have about them. The website provides a “Frequently Asked Questions” (FAQ) section for enhancing citizens’ tax issue understandings. If citizens make a specific claim, they can follow the directions that are included in the document downloads and receive confirmation and status updates on the claim through the Internet. This service fosters government efficiency in tax works while simultaneously providing transparency and accountability. People who want to contest their taxes can make claims online after providing identification verification. This process permits professionals, such as an accountants or lawyers, to aid citizens in tax issues. Citizens are asked to submit documents and related materials, either physically or electronically, accompanied by a reasonable explanation.

3.3 Citizen Participation

Citizen participation in governance processes is regarded as a core section of e-governance (Gartner 2006; Rhodes 1997). Using information and service provision via e-governance can facilitate citizens to more easily participate in the policymaking process. This section moves from information and service provision to the dimensions, evolution, and use of citizen participation in policymaking processes of e-Seoul.
The Korean National Government operates its own participatory websites (www.epople.go.kr) and the OK service (www.oklife.go.kr) through the Ministry of Administration. Most cities in Korea also have some type of participation in their own e-governance systems. Some major cities, such as Daegu and Incheon, have operated them since 2007 and 2008, respectively, allowing citizens to express their concerns and offer suggestions.

E-Seoul has had four major citizen participation forms that will be focused on here. Their goal has been to enhance formal interaction and intercommunication between citizens and the SMG. These are 1) Cyber Forum, 2) Appeal to the Mayor, 3) Imagination Board and 4) Social Network Service (SNS).

The Cyber Forum was established in 2003 and discontinued in 2011. Its purposes included fostering discussion of policy and administrative issues among citizens and collecting citizens’ opinions on ongoing policies of interest to the SMG. The Appeal to the Mayor website is intended to provide direct communication with the mayor without barriers. Appeal to the Mayor’s menu was started offline in 1996. The current online form was created in 2004 (SMG 2005; SDI 2007). The Imagination Board was launched in October 2006. The Korean name is “Cheonman Sangsang Oasis”, which translates to “Ten million imaginations (though this dissertation will refer to it as “The Imagination Board”).” It aims to build a space where it is possible to initiate, discuss, and adopt policies that are imagined and suggested by citizens.

Finally, using SNS for citizen participation is the newest way to involve citizens in governance processes. SMG now utilizes official Facebook, Twitter, and Me2day20

20 This is a Korean SNS website giving users the ability to send instant messages and hold conversations via the Internet.
pages to interact with citizens. Also, Appeal to the Mayor and the Imagination Board can be linked with SNS. Like information and service provision, these four major participation modes have evolved with changes in ICT development and SMG political leadership (Jung 2007; OECD 2008; Hwang 2012).

SMG provides rewards to encourage citizen participation. When operational, the Cyber Forum provided a gift card\textsuperscript{21} for participants who suggested policies or improvements that were adopted by the SMG. With the Imagination Board, proposals selected for consideration can win a $100 culture voucher prize and are automatically a candidate for a “Seoul Creativeness Award.” The “Seoul Creativeness Award” is given annually. The winner takes a $3,000 prize and is selected through votes from citizens, experts, and SMG officials who are active on the Imagination Board. Also, the Public Communication Bureau distributes monthly “Best Communication Awards” to SNS participants in the form of $50 vouchers to purchase books, DVDs, and movie tickets via commercial websites. The winner is selected by the most “Like” votes from mobile users.

The Department of Information and Planning (DIP) is the most important unit in the operation of e-Seoul. It has a key role in the management, budgeting, personnel arrangement, and development of e-Seoul. DIP is composed of five sub-units: information planning, information system, GIS planning, information and communication planning, and ubiquitous planning units. This department was launched in 1999 under the Mayor’s office.

\textsuperscript{21} This is composed of culture vouchers for purchasing DVDs, books, and movie tickets, and traditional market place vouchers for use at farmers’ markets.
This department has 18 personnel under its chief officer. It also plays a major role in the operation of citizen participatory menus to classify and set guidelines for their use. Furthermore, all citizen participation inputs are reviewed by the DIP to avoid advertisement content. The technical support and archive processes are provided by the Seoul Data Center (SDC).

In the case of the Cyber Forum, discussion topics were selected by the DIP. Answers to citizens' questions and official comments were produced by the departments or bureaus in charge of the matters raised, after being referred to them by the DIP. Postings to Appeal to the Mayor are also distributed to the agency in charge of the matter by the DIP. The answers are prepared by the DIP after consulting with the appropriate agencies, and then they must be approved by the mayor. The Imagination Board is administrated by a Citizen Suggestion Unit (CSU) that is located in the Mayor's office in cooperation with DIP. Citizen postings are reviewed by the CSU and related departments' personnel if needed. SNS uses are managed by the Public Communication Bureau, located in the Mayor's office. It provides responses to citizens after consultation with related departments, bureaus, and the mayor. Citizens can directly communicate with the mayor via the SMG accounts on Twitter and Facebook.

3.3.1 Cyber Forum

The Cyber Forum was created by the SMG in 2003 to allow it to collect citizen opinions on topics of concern. Issues under discussion were initially suggested by government officials from various SMG units and finally selected by the Mayor's Office. All technical assistance and website design was assigned by DIP and was divided into "adult" and "juvenile" sections.
The adult section of the Cyber Forum aimed to provide citizens with opportunities to understand policy issues in Seoul, to encourage citizen participation in governance processes while obtaining feedback about policy issues, and to gather citizens' suggestions in the policymaking process. There were monthly discussion topics selected by the Mayor's Office, in consultation with other SMG agencies. A total of 106 SMG topics were discussed, with 10,976 total individual postings about them and 412,298 total response comments from 2003 through the end of 2011.

The primary goal of the juvenile board was to foster civic education among young people and provide their involvement in public discussion on the government website (SMG 2004). Here, the Mayor's Office also selected a monthly discussion theme. From 2003 through 2011, a total of 110 themes were discussed in the juvenile section, with a total of 4,440 individual postings and 137,734 responses. The SMG posted online summaries of the discussions within the forums and any related actions taken.

One use of the adult section was as a kind of pre-test of future policy by the SMG. Topics here were related to transportation, culture, land use, environment, security, and childcare issues. For example, a bus-only traffic lane system was discussed. As a result, six citizen suggestions concerning it were adopted by the SMG in 2007. In the same year, the SMG sought opinions about Seoul Square, an open space for citizens in the central area of Seoul. It was a sensitive issue, with conflicts between different citizen groups at the time. Some citizens' comments were adopted by the SMG and are reflected in the current Seoul Square design. Other issues included placing a ban on fishing on the Hangang River in 2009, setting up an
exclusive street lane for bicycles in 2010, and managing eco-friendly community farms in the Hangang River area.

In the juvenile section, most topics were concerned with education policies. The purpose was to enhance teenagers' debate experiences in an online format. A major discussion theme brought up twelve times was concerned with the "Seoul Student Rights Ordinance."22 The government used the discussion to gather middle and high school students' opinions on this issue. Also, issues regarding liquor and cigarette sales for juveniles were discussed here. Before legislation was passed, SMG tested and heard students' opinions. A "student volunteer certificate"23 by the SMG was discussed in the Cyber Forum while simultaneously being discussed by national and local government officials.

Table 3.8 shows total discussion topics, individual postings concerned about discussion topics, and comments on individual postings by citizen participants. As a brief explanation of the process, once SMG gives a discussion topic, people who want to express their opinions make individual postings concerned about the topic. Other citizens can directly respond to other individual postings as comments, including their own evaluations and agreement.

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22 This is an ordinance for raising the human rights of K-12 students in Seoul, including the freedom of expression and physical restriction by teachers.

23 Most Korean universities give extra points for a "student volunteer certificate" in their admissions application process. The SMG, Korean governmental agencies, NGOs, and religious places issue this certificate to students who complete voluntary work.
Table 3.8  Cyber Forum Management Statistics from 2003 to 2009\textsuperscript{24}

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th></th>
<th>Adult</th>
<th></th>
<th>Juvenile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Topics</td>
<td>Individual postings</td>
<td>Response comments</td>
<td>Topics</td>
<td>Individual postings</td>
</tr>
<tr>
<td>2003</td>
<td>20</td>
<td>1,438</td>
<td>81,878</td>
<td>10</td>
<td>1,011</td>
</tr>
<tr>
<td>2004</td>
<td>30</td>
<td>2,451</td>
<td>108,868</td>
<td>12</td>
<td>1,516</td>
</tr>
<tr>
<td>2005</td>
<td>24</td>
<td>2,612</td>
<td>103,858</td>
<td>12</td>
<td>2,184</td>
</tr>
<tr>
<td>2006</td>
<td>24</td>
<td>2,320</td>
<td>119,974</td>
<td>12</td>
<td>1,605</td>
</tr>
<tr>
<td>2007</td>
<td>24</td>
<td>2,497</td>
<td>42,399</td>
<td>12</td>
<td>1,577</td>
</tr>
<tr>
<td>2008</td>
<td>24</td>
<td>2,331</td>
<td>66,978</td>
<td>12</td>
<td>1,880</td>
</tr>
<tr>
<td>2009</td>
<td>24</td>
<td>1,767</td>
<td>26,077</td>
<td>12</td>
<td>1,194</td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
<td>15,416</td>
<td>550,032</td>
<td>82</td>
<td>10,976</td>
</tr>
</tbody>
</table>


According to Table 3.8, the Cyber Forum grew from 2003 through 2006 and began an overall decline in 2007. This coincided with the start of the Imagination Board. According to the SMG (2008), the Cyber Forum was the most important and biggest participatory dimension of e-Seoul before the Imagination Board was launched. The Cyber Forum was controlled by a government-driven agenda and discussed topics determined by SMG. The Imagination Board, on the other hand, allows for more direct citizen involvement in policymaking. Citizens suggest discussion topics. When the SMG set up the Imagination Board, the Cyber Forum lost much of its functionality

\textsuperscript{24} This research contains data only from 2003 through 2009 in Cyber Forum. From 2010 on, data is unavailable.
and usage by citizens. As of December 2012, the Cyber Forum was modified by SMG and integrated into the Imagination Board. Since 2012, the adult section is used infrequently within the Imagination Board, and the juvenile section has been ended (SMG 2013). Although the Cyber Forum was closed, parts of its roles and functions moved to the Imagination Board, and it played an important part of the evolution of e-Seoul in terms of its role in engaging citizens.

### 3.3.2 Appeal to the Mayor

From 1996 through mid-1998, Appeal to The mayor involved citizen suggestions and requests to the mayor via postal mail and direct contact in City Hall.

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Appeals</td>
<td>100</td>
<td>87</td>
<td>73</td>
<td>19</td>
<td>35</td>
<td>13</td>
<td>11</td>
<td>232</td>
</tr>
</tbody>
</table>


25 In 2003, appeals were dramatically increased from the previous year due to the Chongyecheon Creek Redevelopment Project. This project was the biggest urban redevelopment plan in Korea, and it saw both major conflict and major support from citizens. A total of a quarter billion USD was put into the project over three years (2003-2005), and approximately 400 stores and small manufactures were moved from the area (SMG 2006). This Project was started in 2003, and 85% of the appeals were related to the Project through personal petitions and suggestions to the Mayor (SMG 2004).
It was started to overcome “red tape” and complicated processes that generally discourage citizens from seeking contact with political officials about matters of concern. The online form of Appeal to the Mayor began in August 1998, and from then through 2003, it operated both offline and online. According to the SMG White Paper (2007), online requests were only about 15% of the total from 1998 through 2002. However, by 2003, approximately 90% were in the form of online requests. This shift fostered the transition to a totally Internet-based Appeal to the Mayor.

In late 2004, Appeal to the Mayor was integrated into e-Seoul for easier access (SMG 2005; Myong 2005). The present Appeal to the Mayor involves direct online communication to the mayor via e-Seoul, with the purpose of encouraging citizens to express their own suggestions and complaints via the Internet directly to the mayor without a complicated process (SMG 2012). They can send a short message to the mayor with personal requests on administrative or petition-related issues (Lim 2006; Moon 2007).

Table 3.10 Operation Process of Appeal to the Mayor

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Online appeal from citizen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Distribute to related departments by the DIP</td>
</tr>
<tr>
<td>Step 3</td>
<td>Proposed responses from related departments</td>
</tr>
<tr>
<td>Step 4</td>
<td>Review and revision by Mayor’s Office</td>
</tr>
<tr>
<td>Step 5</td>
<td>Mayor’s feedback prepared by the DIP</td>
</tr>
<tr>
<td>Step 6</td>
<td>Mayor’s response sent to citizen and posted on website</td>
</tr>
</tbody>
</table>
This system has six steps from initial citizen's appeal to final feedback, as indicated in Table 3.10. Once registered through the website, a person's posting is initially assigned to the appropriate SMG department by the CSU. It is then reviewed by department personnel and forwarded to the Mayor's Office, where the final decision is made. Subsequently, feedback is sent by a spokesperson on behalf of the mayor to citizens via e-mail with detailed contents and is also posted on the Appeal to the Mayor's website.

Table 3.11 shows the total requests of this website by official topic from 2004 to 2011. Over this period, posted appeals increased from 802 in 2004 to 5,310 in 2011, with 8,815 postings in 2008 the highest count. Annual usage decreased every year from 2009 to 2011. This change was partially influenced by the new availability of the Imagination Board.

More specifically, most appeals relate to personal opinions and suggestions to the mayor about the city. Citizens write their appeal in an e-mail form provided. Writers can attach supportive materials within the form, such as pictures, documents, and video clips. Public officials classify the appeals among eight classifications indicated in Table 3.11. Appeal to the Mayor saw transportation (21.7%) as the most frequent issue. Housing (15.4%), environment (13.1%), general administration (11.8%), and others (10.8%) followed in volume. Women and welfare (9.9%), urban planning (8.3%), and industry and culture (7.4%) were each under 10%, respectively.
<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Transportation</th>
<th>Housing</th>
<th>Environment</th>
<th>General Administration</th>
<th>Others</th>
<th>Women/Welfare</th>
<th>Urban Planning</th>
<th>Industry/Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>45,441</td>
<td>9,866</td>
<td>6,992</td>
<td>5,961</td>
<td>5,353</td>
<td>4,911</td>
<td>4,360</td>
<td>3,769</td>
<td>3,396</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(21.7%)</td>
<td>(13.1%)</td>
<td>(13.1%)</td>
<td>(13.1%)</td>
<td>(10.8%)</td>
<td>(9.9%)</td>
<td>(8.3%)</td>
<td>(7.4%)</td>
</tr>
<tr>
<td>2004</td>
<td>8,021</td>
<td>260</td>
<td>126</td>
<td>66</td>
<td>98</td>
<td>115</td>
<td>36</td>
<td>32</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(32.4%)</td>
<td>(15.4%)</td>
<td>(7.6%)</td>
<td>(12.2%)</td>
<td>(14.3%)</td>
<td>(6.5%)</td>
<td>(4.0%)</td>
<td>(6.4%)</td>
</tr>
<tr>
<td>2005</td>
<td>5,735</td>
<td>1,582</td>
<td>757</td>
<td>567</td>
<td>617</td>
<td>607</td>
<td>566</td>
<td>578</td>
<td>501</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(27.6%)</td>
<td>(13.2%)</td>
<td>(9.9%)</td>
<td>(11.1%)</td>
<td>(10.6%)</td>
<td>(8.3%)</td>
<td>(10.1%)</td>
<td>(8.7%)</td>
</tr>
<tr>
<td>2006</td>
<td>4,728</td>
<td>1,195</td>
<td>849</td>
<td>501</td>
<td>446</td>
<td>568</td>
<td>338</td>
<td>455</td>
<td>376</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(25.3%)</td>
<td>(18.0%)</td>
<td>(10.6%)</td>
<td>(9.4%)</td>
<td>(12.0%)</td>
<td>(7.1%)</td>
<td>(9.6%)</td>
<td>(7.9%)</td>
</tr>
<tr>
<td>2007</td>
<td>6,583</td>
<td>1,247</td>
<td>1,240</td>
<td>1,182</td>
<td>623</td>
<td>664</td>
<td>497</td>
<td>755</td>
<td>355</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(18.9%)</td>
<td>(18.0%)</td>
<td>(18.0%)</td>
<td>(9.5%)</td>
<td>(10.4%)</td>
<td>(7.5%)</td>
<td>(11.5%)</td>
<td>(5.4%)</td>
</tr>
<tr>
<td>2008</td>
<td>8,815</td>
<td>1,517</td>
<td>1,337</td>
<td>1,266</td>
<td>843</td>
<td>1,247</td>
<td>1,223</td>
<td>797</td>
<td>526</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(17.2%)</td>
<td>(15.2%)</td>
<td>(14.8%)</td>
<td>(9.6%)</td>
<td>(14.1%)</td>
<td>(13.9%)</td>
<td>(9.0%)</td>
<td>(6.2%)</td>
</tr>
<tr>
<td>2009</td>
<td>7,070</td>
<td>1,521</td>
<td>1,367</td>
<td>786</td>
<td>989</td>
<td>595</td>
<td>510</td>
<td>487</td>
<td>526</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(21.5%)</td>
<td>(18.5%)</td>
<td>(11.0%)</td>
<td>(14.0%)</td>
<td>(14.0%)</td>
<td>(8.4%)</td>
<td>(7.2%)</td>
<td>(6.9%)</td>
</tr>
<tr>
<td>2010</td>
<td>6,798</td>
<td>1,579</td>
<td>899</td>
<td>618</td>
<td>825</td>
<td>600</td>
<td>698</td>
<td>458</td>
<td>638</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(24.7%)</td>
<td>(14.0%)</td>
<td>(9.7%)</td>
<td>(12.9%)</td>
<td>(10.9%)</td>
<td>(7.1%)</td>
<td>(9.9%)</td>
<td>(3.3%)</td>
</tr>
<tr>
<td>2011</td>
<td>5,310</td>
<td>965</td>
<td>903</td>
<td>418</td>
<td>1,101</td>
<td>711</td>
<td>588</td>
<td>184</td>
<td>440</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(18.2%)</td>
<td>(17.6%)</td>
<td>(7.9%)</td>
<td>(20.7%)</td>
<td>(13.4%)</td>
<td>(11.1%)</td>
<td>(3.5%)</td>
<td>(8.3%)</td>
</tr>
</tbody>
</table>


Transportation appeals relate to such things as building a community parking lot, expanding bicycle lanes, and launching a reversible lane in heavy traffic
areas. Housing issues are most related to the “New Town Project”\textsuperscript{26} and “Bokeumjari Project.”\textsuperscript{27} The “Chongyecheon Creek Redevelopment”, “Han River Redevelopment” and “Internship for Young College Students” were some of the other projects most appealed to the mayor (SMG 2012).

Appeal to the Mayor had its name changed in November 2011 to “Appeal to Wonsoon.” The new mayor, Park Wonsoon, did this to make it a more personalized experience. “Appeal to Wonsoon,” it is now available both through the e-Seoul website and the mayor’s official SNS account. In 2012, a total of 8,653 appeals were made here and 5,034 in 2013 and 6,050 in 2014 occurred.

3.3.3 Evolution and Operation of the Imagination Board

The SMG launched the participatory Imagination Board website in 2006 to directly involve citizens in the policymaking process through suggesting public policies online and discussing them both online and in offline meetings. According to the SMG (2011), it is intended to raise democratic citizen participation and better understand citizens’ needs and demands.

\textsuperscript{26} In 2006, Mayor Oh Sehoon declared the New Town Project, a redevelopment plan in some of Seoul’s deteriorated housing areas. This project compensated people who are residents or landlords in redevelopment areas. From 2006 through 2008, a total of eight “New Town” areas were declared by SMG; however, some other areas of Seoul asked to become “New Towns” as well, and it became the most controversial campaign issue in the 2008 national congressional election and 2010 local election.

\textsuperscript{27} This project was set up by Mayors Lee Myongbak and Oh Sehoon. Bokeumjari means “Sweet Home” in Korean. Its purpose was to provide stable residences for citizens through lower-cost rent by the SMG. However, it was very competitive to receive a right to move into “Bokeumjari”, and the project did not expand as originally planned, due to lack of budget and conflict between companies and citizens.

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Citizens make policy proposals, and government officials, professionals, and citizens debate and evaluate them. Thus, the Board offers citizens the opportunity to suggest policy that has the possibility of being adopted. Through debating the ideas of citizens, both government officials and citizens who are registered on Imagination Board are able to participate with each other, seek to harmonize conflicts, and realize their own interests and needs.

In brief, citizens propose their ideas for policies. Selected proposals then move to an online debate in order to be discussed by citizens, officials, and professionals. The remaining proposals are discussed, and recommendations are made by citizens, officials, and professionals in an offline Open Meeting. Imagination Board recommendations must still be approved and implemented by SMG.

The main page of the Imagination Board (http://oasis.seoul.go.kr/) and official SMG materials indicate it has three steps: 1) ideas and suggestions, 2) online debate, and 3) realization. However, as will be indicated in Chapter 4, there are more than three steps involved in a citizen suggestion becoming an approved policy, and ultimate control is retained by SMG.

A small number of citizen ideas were accepted as policies through the Imagination Board from October 2006 to December 2011. Table 3.12 indicates total policy proposals initially submitted and the number remaining at the end of the Imagination Board process. The total usage of the Imagination Board has grown every year except in 2011. Notably, 2009 marked a growth that was four times greater than in 2008, while 2010 showed a growth in total postings that was 70% more than in 2009. 2010 was recorded as the year with highest usage. In 2011, the total usage was significantly decreased from the previous year. 2011 had a special election for the new
mayor due to a political conflict. Imagination Board processes were temporarily frozen in the second and third quarter of this year.

Table 3.12  Stages and Procedures of the Imagination Board

<table>
<thead>
<tr>
<th>Period</th>
<th>Total Posting</th>
<th>Suggestions initially considered</th>
<th>Selected for debate online</th>
<th>Project Meeting for decision</th>
<th>Open Meeting at offline</th>
<th>SMG Accepted Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2011</td>
<td>136,379</td>
<td>109,123 (80.0%)</td>
<td>5,791 (4.2%)</td>
<td>1,479 (1.0%)</td>
<td>383 (0.28%)</td>
<td>324 (0.24%)</td>
</tr>
</tbody>
</table>

Source: Data from the Internal Statistics of the Seoul Metropolitan Government 2012

Advertisements and inappropriate ideas are eliminated in initial screening steps by DIP officials. Relatively few ideas, roughly 4% of total proposals, are actually accepted for consideration and moved to the online debate involving citizens. Additional steps, which further reduce the remaining proposals in this process, will be discussed in Chapter 4. As Table 3.10 indicates, less than 1% of initially considered suggestions are approved.

From 2012 through 2014, the official data indicates only citizen proposals and final approvals. According to the SMG’s internal report, a total of 23,82828 citizen proposals were made and 360 were approved finally in this period. Approximately 1.5% of total proposals became the real policies.

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28 The detailed statistics are listed here; 7,610 in 2012, 8,031 in 2013, and 6,650 in 2014.
3.3.4 SNS Use

Recent developments in mobile communication devices have become linked to e-Seoul. SNS assists citizen participation. E-Seoul provides citizens with the ability to send messages directly to the mayor and other officials through SNS. These SMG officials have online presences on Twitter, Facebook, and other SNS websites. SMG conducted a survey of “The Everyday Life of Seoul Citizens” in May 2014 with a sample of 2,426, and 67.5% of respondents used SNS via the Internet and Mobile devices (http://news.mt.co.kr/interview.php?no=2014051722013134624).

More specifically, SMG built SNS communication between citizens as a new participatory channel in the e-governance system. As of May 2015, a total of 55,863 citizens connected with 105 official SMG Twitter accounts. The current mayor, Park, Wonsoon communicates with citizens via Facebook and had 182,713 followers in February 2014. SMG officials and agencies had 43 Facebook, two Kakao Story, and one Instagram account as of May 2015.

In order to manage SNS communication between SMG and citizens, a Social Media Center (SMC) was launched in November 2012. SMG has sought to construct an integrated platform of SNS use to deal with citizens’ suggestions and feedback from SMG. The Social Media Center shares questions and answers with all users of the SMC website (http://social.seoul.go.kr). Citizens can write replies on registered SNS posts to communicate with original posters, citizens, and officials. SMC manages approximately 800,000 SNS connected citizens as of May 2014 and

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29 The Korean portal website, Scout, conducted this survey about “digital life” for those in their 20s and 30s in Seoul. Their results showed that 60% of respondents used a Social Network Service, and 56.7% of respondents had smart phone (Internet phone) devices in 2012.
aims at also building an integrated disaster and crisis management system. For example, from December 2013 to March 2014, SMC sent an emergency warnings to the SNS-connected users to announce winter blizzards and snowstorms in the Seoul area.

The current mayor, Park, created a direct SNS linkage with citizens using Twitter and Facebook that shifted some direct communication with the mayor away from Appeal to Wonsoon. As a newer type of citizen initiative in e-governance participation in SNS, Twitter and Facebook can be used to connect to government officials.

3.4 Citizen Evaluation: 2011 User Survey

There has been limited research related to users’ general evaluation of e-Seoul. However, an evaluation survey conducted by SMG in 2011 provides some insights. The survey was aimed at improving e-Seoul as a user-centric system (SMG 2011). SMG’s Department of Information and Planning (DIP) designed the survey, and a private company, Panel Insite, conducted it in 2011. The sample involved 365 who were registered e-Seoul users, who were online, and who responded to a request to participate in the survey.

In the sample, there were 193 males and 172 females. Those in their 20s (32.8%) and 30s (37.0%) were about 70% of the total sample population. Of the respondents, 198 (54.2%) respondents lived in Seoul, 95 (26.0%) in Kyonggi Province satellite towns, and 72 (19.8%) were from other regions.

The survey questions used here relate to the sampled e-Seoul members’ frequency of use of the system and their evaluation of information, service, and
participation dimensions. The survey asked about content, feedback, accessibility, fidelity, user convenience, system stability, and privacy and security. Respondents were given a choice of “highly satisfied,” “satisfied,” “dissatisfied,” and “highly dissatisfied” for each of these elements.

Frequency of connection with e-Seoul

The survey asked, “How often are you connected to e-Seoul?” As indicated by Figure 3.5, 17.5% said they connected to e-Seoul at least once a day, and 28.6% one to four times a week. However, a majority (54.0%) connected once a month (26.8%) or less (27.2%).

What types of content did citizens utilize? The survey asked, “Did you use e-Seoul to get information within the past year?” Of the respondents, 58.6% indicated they had. At the time of the survey, the e-Seoul website had six major banners on the main page. As noted, four of the banners were information-related: 1) Administrative Information, 2) SMG News, 3) About Seoul, and 4) Sectional Information. The other two options were e-request relating to services and citizen participation.
The survey asked, “Have you used any of the following services—Internet Request, Tax, or Integrated Reservation—within the past year?” The question allowed for multiple answers. Table 3.13 shows that 44.7% of respondents used the Integrated Reservation service, 22.2% used the Tax service, and 21.6% used the Internet Request service in 2011.

The survey also asked, “Have you used any of the following citizen participation menus—Cyber Forum, Appeal to the Mayor, or Imagination Board—
within the past year? Of the respondents, 29.9%, less than one-third, indicated they had.

Table 3.13 F-Seoul User Survey for Selected Information, Service, and Citizen Participation

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Internet Request</th>
<th>Tax</th>
<th>Citizen participation</th>
<th>Integrated Reservation</th>
<th>Information Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
<td>21.6</td>
<td>22.2</td>
<td>29.9</td>
<td>44.7</td>
<td>58.6</td>
</tr>
</tbody>
</table>

Source: Official Report by DIP. 2012

Reasons why certain citizens do not use e-Seoul contents

The previous questions asked about uses made of e-Seoul. The respondents who used them at least one or more were 206 (56.4%). The survey then asked 159 respondents (44.6%) who do not use e-Seoul for their reasons why.

As indicated by Figure 3.6, 40.3% of the non-users answered that they did not know enough about e-Seoul’s service contents. Virtually the same percentage, 39.6%, responded that they did not need to use e-Seoul, and 14.5% of respondents answered that they used other portal websites instead of e-Seoul. Thus, just over half (54.1%) of these respondents did not feel the need to use e-Seoul or utilized private portal websites instead.

30 These data are not included in the specific participatory menu usage percentages.
Core evaluations of e-Seoul

The survey further asked how satisfied you are with specific elements of e-Seoul, including: 1) privacy and security, 2) system stability, 3) fidelity, 4) user convenience, 5) content, 6) feedback, and 7) accessibility. There were four options: highly satisfied, satisfied, dissatisfied, and highly dissatisfied. All of 365 respondents participated in these questionnaires and expressed their opinions. Among them, 159 people answered that they rarely connected to e-Seoul, however, they also answered their opinions about the satisfaction on specific elements of e-Seoul use. The
following section looks at the evaluations by survey respondents that are related to the use of information, services, and participation.

Relation to information, service, and participation

1. Content

This question asked, “Are you satisfied with content of e-Seoul” in terms of the website providing accurate and varied information and services useful in the life of citizens and fulfilling service quality?”

Table 3.14 Contents Evaluation

<table>
<thead>
<tr>
<th>N</th>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
<td>23.3</td>
<td>54.2</td>
<td>19.2</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Source: Official Report by DIP 2012

According to the citizen survey, 23.3% of respondents were highly satisfied and 54.2% were satisfied with e-Seoul content, as noted in Table 3.14.

2. Feedback

This question asked, “Are you satisfied with the feedback of e-Seoul?” Feedback was explained as “SMG officials promptly and adequately responding to citizens’ questions and suggestions.”
Table 3.15  Feedback Evaluation

<table>
<thead>
<tr>
<th>N</th>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
<td>15.6</td>
<td>47.7</td>
<td>28.2</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Source: Official Report by DIP. 2012

According to the survey, 15.6% and 47.7% of users were highly satisfied or satisfied with e-Seoul's feedback system. However, close to one-third were either dissatisfied (28.2%) or highly dissatisfied (3.0%) with it.

3. Accessibility

In relation to accessibility, the survey asked, “Are you satisfied with the accessibility of e-Seoul?” The survey explained accessibility as being able to “approach and use needed information and services easily.” In response, 20.8% of respondents were highly satisfied and 66.6% were satisfied with accessibility, as noted in Table 3.16. Only 11.2% were dissatisfied and 1.1% were highly dissatisfied with accessibility. Accessibility had the highest combination of satisfied and highly satisfied (87.4%) of all elements asked about.
Table 3.16 Accessibility Evaluation

<table>
<thead>
<tr>
<th>N</th>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
<td>20.8</td>
<td>66.6</td>
<td>11.2</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Official Report by DIP 2012

4. User Convenience

This question asked, "Are you satisfied with the user convenience of e-Seoul?" In other words, "you can use a variety of contents easily such as Internet request, bus and map searching, and other search-related things." The 2011 survey found that 21.6% were highly satisfied and 62.7% were satisfied with the user convenience of e-Seoul's service provision, as shown Table 3.17.

Table 3.17 User Convenience Evaluation

<table>
<thead>
<tr>
<th>N</th>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
<td>21.6</td>
<td>62.7</td>
<td>13.7</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: Official Report by DIP 2012

5. Fidelity
The operational definition of fidelity includes consistent information and a citizen’s ability to find or clarify relevant information. The question used in the survey was, “Are you satisfied with the fidelity of e-Seoul system in terms of it providing useful information and services that meet citizens’ demands and needs?”

Table 3.18 Fidelity Evaluation

<table>
<thead>
<tr>
<th>N</th>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Total</td>
<td>365</td>
<td>20.0</td>
<td>60.0</td>
<td>18.4</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Source: Official Report by DIP 2012

In the survey, 20% indicated they were highly satisfied, and 60.0% of respondents expressed their satisfaction in the fidelity of e-Seoul.

The selected five elements were evaluated overall as satisfactory by citizens in terms of relating e-Seoul’s information, services, and citizen participation dimensions. Citizens were highly satisfied or satisfied with Accessibility (87.4%) and User Convenience (84.3%). In a second tier, citizens were highly satisfied and satisfied with Fidelity (80.0%) and Contents (77.5%). Feedback (63.3%) was the lowest satisfaction rate from respondents among the five elements.

3.5 Conclusions

As the data shows, the SMG’s e-Seoul has evolved over a decade in several ways, adopting new technology that offers a wide range and growing array of information, services, and ways for citizens to connect with officials. A number of
content dimensions have been added, modified, or eliminated by the SMG following citizens’ input and internal reviews (Hwang 2012). In general, a small sample of e-Seoul registered users responded positively in their assessment of various information, service, and participatory dimensions.

Thus, the chapter serves the purpose of providing evidence that development of information and services for citizens in e-Seoul have evolved and expanded significantly over the last decade and fit the top ranking that SMG formal e-governance has received in international evaluations.

However, the extent to which e-Seoul has significantly increased its influence in the city’s political system and power structure, as indicated in the international assessments, requires further and more detailed consideration. The next chapter will look more closely at the major dimension of e-Seoul specifically designed to directly involve citizens in SMG policymaking in a formal way, the Imagination Board. It will examine its actual operation and, more broadly, the role and influence of SMG mayors in fitting e-Seoul into the existing political system in which the mayor is a main actor.
Chapter 4

CRUCIAL FACTORS FOR CITIZEN PARTICIPATION

This chapter deals with providing general and critical descriptions and analysis of e-Seoul's main participatory menu, the Imagination Board, including the dominant role of SMG. Through a case study of the Imagination Board, we can look at the roles of all actors who are involved, the way in which a complex set of procedures are organized for Imagination Board decisions, and how influence and power are exercised in the Imagination Board. To further expand on an understanding of e-Seoul's political dimensions, this chapter will also examine the role that mayors of Seoul—one of the most powerful political positions in Korea—have played in the overall development and functions of e-Seoul.

4.1 The Imagination Board

4.1.1 The Origins of the Imagination Board

SMG and e-Seoul set up the Imagination Board to involve citizens in the policymaking processes of the city (SMG 2006). It allows citizens to formally make policy proposals and to participate in subsequent discussions about them directly with SMG officials and experts. The main page of the Imagination Board states that it provides a space for citizens to freely communicate and be involved in policymaking via the Internet (oasis.seoul.go.kr/oasis/introduce.jsp).
The Imagination Board was established in 2006 by Mayor Oh Sehoon, based on the plan provided in mayoral initiative No. 300 (SMG 2009). The Citizen Suggestion Unit (CSU) and Department of Information and Planning (DIP) managed a preliminary website before the Imagination Board was launched to collect citizens’ creative ideas and suggestions for city administration. Based on experience with the preliminary website, SMG developed and built the current form of the Imagination Board with CSU and DIP in the management role (SMG 2006). The preliminary website operated in a trial phase for three months, though it was basically in the same format as the current Imagination Board. In 2012, the annual budget of the Imagination Board was approximately 200 thousand USD (SMG 2012).

The Imagination Board is open to citizens who are registered with e-Seoul and with the Imagination Board. They can make policy proposals, comment on proposals under consideration, and indicate their support or dissent.

4.1.2 Processes of the Imagination Board

This section explains the formal organization and processes involved within the Imagination Board from the perspective of both SMG and citizens. The official website of The Imagination Board defines it as having three basic steps in which citizens are involved in policymaking: 1) suggestions, 2) debates, and 3) realizations (oasis.seoul.go.kr/). Some scholars list four steps in the process in their academic work. These include 1) suggestions, 2) debates, 3) decisions, and 4) implementation (Kang 2009; Hwang 2012; Clio and Oh 2012). Another SMG publication lists five: 1) suggestions, 2) debates, 3) decisions, 4) implementation, and 5) assessments (SMG 2014).
However, current analyses fail to identify all of the actual steps concerning who truly makes decisions about the approval and implementation of citizen policy suggestions. This study identifies a process that has twelve steps—most of which take place offline—in which citizens only participate online. These additional steps are designed to give the SMG full control over the final content and approval of any policy implemented through the Imagination Board. Table 4.1 indicates that the twelve steps are: 1) citizen suggestions; 2) SMG initial review and elimination; 3) citizen evaluations and recommendations on remaining suggestions; 4) SMG administrators and agencies review and further eliminate citizen proposals; 5) online debate in which citizens, officials, and experts participate to recommend which suggestions should continue to be considered; 6) SMG agencies and administrators again review and eliminate; 7) project meeting to again reduce proposal to take to the offline meeting; 8) further SMG elimination; 9) offline open meeting with officials, experts and a limited number of citizens; 10) SMG review and final approval; 11) SMG implementation with possible further changes, and 12) review of the functionality of a policy after its adoption.

As Table 4.1 indicates, there are a variety of actors who participate in Imagination Board decision-making. They include: citizens who are registered with e-Seoul and the Imagination Board; ING advocacy group members; professionals and experts relevant to the topics; specific SMG agencies administering the Imagination Board, such as DIP and CSU; officials and agencies relevant to specific policy proposals, and the SMG mayor.
Table 4.1  Roles of Citizens and SMG in the Imagination Board Process

<table>
<thead>
<tr>
<th>Step</th>
<th>Citizens</th>
<th>ING</th>
<th>SMG</th>
<th>Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Citizen Suggestion - Online</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. SMG initial review / elimination - Offline</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. Citizen evaluation / comments - Online</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. SMG further review / elimination - Offline</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>5. Online debate - Online</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>6. SMG review / elimination - Offline</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>7. Project Meeting - Offline</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>(Proposing citizens if he or she desires)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ING representatives)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. SMG further consideration - Offline</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>9. Open Meeting - Offline</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>(Selected 200 citizens)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. SMG review / final approval - Offline</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>11. SMG implementation - Offline</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>12. Review of adopted policy - Offline</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

The following discussion looks at each of the 12 steps in more detail.

**STEP 1. Citizen suggestions: online**

*Citizens*
In the first step, citizens propose policies to the Imagination Board following the Imagination Board format. The proposal can use pictures, graphs, and multimedia materials. From October 31st, 2006 to the end of 2011, citizens wrote a total of 136,379 postings.

STEP 2. Initial consideration: offline

Once a proposal is posted, government officials in charge of the relevant department initially screen the suggestion. Postings that contain personal petitions, advertisements, that are not within SMG’s authority’s, or are not deemed relevant are eliminated by the DIP and CSU. All remaining postings with ten or more positive comments from citizens are moved to the next step for general citizen evaluation and recommendations. After this initial consideration and elimination offline by the SMG, a total of 109,123 postings were moved to online citizen evaluation.

STEP 3. Citizen evaluations and recommendations: online

Citizens can recommend and make positive or negative comments on each idea. Citizens can also respond to comments of other citizens. If a proposal receives the support of ten or more citizens and is approved by the SMG, it is moved to step 4.

STEP 4. SMG reviews: offline

SMG
SMG officials select many fewer proposals than were approved in step 3 to continue on in the process. Based on importance, validity, and needs, some selected topics are moved to the next step to be discussed by citizens and SMG (oasis.seoul.go.kr/oasis/introduce.jsp). After this offline SMG step, a total of 5,791 postings (4.2% of the original number) remained to be considered.

**STEP 5. Debate: online**

_Citizens/ ING/ SMG/ Experts_

The remaining policies are debated publicly online among citizens, experts, and public officials, including the mayor. This is to allow citizen comments and their selection of policy proposals to be further considered.

Citizens again state their views online and respond to the comments and opinions of others. The CSU distributes citizens' suggestions to other bureaus and departments with relevant responsibilities. From then on, public officials can participate in the discussion with citizens. Mayors often write a comment or opinion about citizen proposals that are part of the discourse. SMG selects some of the debated ideas. The criteria of selection to the next step are positive evaluation from citizens and SMG assessment of the future productivity of proposals (SMG 2013).

**STEP 6. SMG reviews: offline**

_SMG_

SMG further eliminates proposals received from previous steps and keeps those that are perceived to meet citizen needs and fit, budget flexibility, legality, and policy concerns (Cho and Oh 2012).
STEP 7. Project Meeting: offline

In the offline "Project Meeting", the SMG evaluates proposals that remain after step 6 to select ideas in terms of their importance and feasibility. A total of 1,479 suggestions (1.1%) were assessed in this step from 2006 to 2011. Government officials and experts discuss these proposals and the results move to the Open Meeting. Government officials again consider budget, law, social policies, and institutional factors. The related department's officials and researchers within The Seoul Institute discuss citizens' postings in terms of policy needs and demands (SMG 2012; Hwang 2012).

Citizens

Only the citizen or citizens who originally posted the proposals under consideration are qualified to attend the project meeting. They can discuss why they suggested it to the SMG and what its goals are.

ING

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31 This is the main body for urban research within Seoul. SMG operates its own research institute for improving policymaking and administrative processes. It was launched in 1992 as the Seoul Development Institute (SDI), and its name was changed in 2012 to the Seoul Institute (SI). Seoul Institute researchers participate in the project meeting process as experts on urban issues. They have a role to comment and evaluate the validity and reliability of selected issues.
ING representatives can participate in this meeting, but not citizens in general.

**STEP 8. SMG further consideration of policy proposals: offline**

*SMG*

SMG selects ideas remaining for consideration in the offline Open Meeting.

**STEP 9. Open Meeting: offline**

An Open Meeting is held every two months. However, it is not technically a form of e-governance or fully open to citizen participation. As a sort of offline town hall meeting, it is composed of approximately 250 people (SMG 2010). Of these, 200 are citizens. Citizens who want to take part in an Open Meeting can apply via the Internet, but only the first 200 are accepted. In addition, approximately 30 public officials and 20 professionals, selected by the DIP, participate in the Open Meeting. All who attend vote in the decision-making process. The 20 professionals are composed of professors, researchers, and experts related to the agendas (SMG 2013).

In general, the chief officer of CSU or a spokesperson for the SMG chairs the meeting. Professionals, public officials, and citizens are given time to make presentations about the ideas (SMG 2010). Posters and other materials may be utilized.

According to SMG (2012), all discussed ideas are put to a vote. A total of 383 citizen proposals (.28% of the 136,379 originally submitted) were discussed and voted on favorably in this step from 2006 to 2011.
The mayor can play a key role in an Open Meeting. The mayor uses the
Imagination Board for both political purposes and as an alternative channel to
communicate with citizens (Kang 2009; Byun & Choi 2011). Mayors usually
participate in offline Open Meetings to hear and communicate with citizens about
policy proposals, and they can be strong supporters of citizens in the decision-making
process. According to Byun & Choi (2011), there have been cases where mayors
persuaded officials to realize citizens' ideas that were previously received negative
SMG assessments due to budget or institutional difficulties.

In case of the Open Meeting in August 2010, Mayor Oh, Sehoon
sympathized with a citizen proposal about opening a customized childcare program
building in Seoul. A citizen proposed a plan in support of learning for multicultural
families. SMG officials and citizens agreed on its need and importance, but its
approval and implementation were difficult matters in terms of cooperation with other
governmental agencies and budget. Mayor Oh persuaded officials to consider it again,
and it became a temporary project (SMG 2011).

STEP 10. SMG review and final approval: offline

SMG

The small number of suggestions that are approved at the Open Meeting
must still receive final approval from SMG and its relevant bureaus and departments.

STEP 11. Implementation: offline

SMG
Only 324 proposals from the Imagination Board were approved and actually implemented from 2006 through 2011 (SMG 2012).

STEP 12. SMG review of adopted policy: offline

SMG and its agencies evaluate implemented policies after they have been in operation for a time. On the basis of this review, a decision is made to continue or discontinue it. In general, the performance of these policies is reviewed by related departments every quarter and by the overall SMG after one year (SMG 2013).

The actual steps involved in policymaking with the Imagination Board reflect the relationship between citizens and SMG, and they show that it is controlled by SMG with organizational and institutional support. The Imagination Board provides citizen a means of participation in the policymaking process through making proposals and discussing them. However, it is fixed and handled by SMG and has been fit into Seoul's existing political and administrative power structure. Within this context, it is useful to look at a survey of a sample of citizens about their use and satisfaction with it.

4.1.3 2009 Survey of the Imagination Board

The SMG regards the Imagination Board as the best strategic citizen participation model among all participatory menus in e-Seoul (SMG 2011). However, research evaluating it is limited. Kang (2009) conducted a user survey of 945 people online on the Imagination Board in his dissertation to clarify users' demographics, usage, and satisfaction in August 2009. The user survey provides some insight of
citizens' evaluation on the Imagination Board. The survey was carried out with an Internet survey, and a notice was posted on the main page of the Imagination Board, asking online users to voluntarily participate. There was a non-random sample of 945 people who responded.

In terms of demographics, 685 (72.5%) of the respondents were male. People in their 30s (26.7%) and 40s (28.5%) totaled approximately 55%. Reviewing the results of the survey, 11.4% said they visited The Imagination Board five times a week, and 43.4% answered that they visited the Imagination Board at least once a week. Close to one-half used it once a month or less.

On the subject of purpose, 56.7% answered that they use the site to suggest their ideas to the public. 21.8% use it to review others’ ideas and support the Imagination Board as a space for citizen suggestion and debate. Simple curiosity (11.5%), studying specific ideas (6.4%), and unidentified things (3.6%) were also mentioned.

According to survey results (See Figure 4.1), 55.3% were satisfied with the Imagination Board. This survey asked, “Are you satisfied or dissatisfied with some specific elements of the Imagination Board?” There were considerable differences in satisfaction with specific aspects of the Board, ranging from 28.7% (effectiveness) to 65.6% (openness) as indicated by Figure 4.1.
The respondents answered that they were generally satisfied by the democratic process of the Imagination Board (63.6%). Thus, citizens appeared to be more satisfied with the open and free participation of the process than with other elements. Only 28.7% were satisfied with the Imagination Board’s effectiveness. Overall, for each category, at least one-third and at most three-quarters of respondents were not satisfied with the Imagination Boards’ features.

4.1.4 Advocacy Group: ING

A quite different dimension of citizen e-Seoul involvement can be drawn from a description and the activities related to the Imagination Board of a small
advocacy group, the Imagination Netizen Group (ING). It is highly linked with the Imagination Board and the SMG.

As an advocacy group, ING performs an important role in policymaking processes and exercises influence on policy initiatives and debate on the Imagination Board (http://club.seoul.go.kr/). The group’s Korean name is “Sangsang Nuridan”, but it is referred to in this study as ING. In October 2006, the Imagination Board was launched, and ING was set up by SMG a month later in order to promote and facilitate participatory activities (inews.seoul.go.kr/).

However, its management and activities now are autonomous. According to Hwang (2012), members and its managerial committee make all ING decisions. As will be noted, INC has its own website (http://club.seoul.go.kr/club/club_main.jsp?cid=sangnuri) as well as an independent website (http://club.seoul.go.kr/) within the e-Seoul system.

In its initial stage, some members posted things on the ING website concerning personal business or political agendas. However, after a series of debates and struggles over several years, ING changed this in order to maintain a constructive space for discussion and participation. Small business owners who advertised their business on the website were expelled. As part of ING’s self-regulation, there are warning messages not to post business advertisements and personal opinions on ING bulletin boards.

ING members determine the organization’s role and activities through suggestions, discussions, and evaluations on its own website (http://club.seoul.go.kr/). An elected Management Committee handles its administration. According to the SMG (2013), the Committee collects members’ opinions and assigns work to each
The process of assignments and the Committee's managerial roles are decided by members' votes.

Real names and personal information are required to register as an ING member, and once registered as a full member, a person can be involved in all activities. ING members tend to take part in specific steps of the Imagination Board process as informed participants (Kim 2010; Hwang 2011). They propose ideas and debate with others on proposed issues. All actions occur on the Internet.

The ING has averaged approximately 600 members from January 2009 through March 2012. Of a total of 620 members in the 2012 data, males in their 40s were dominant (35%), and those in their 20s constituted 20%. In terms of gender, two-thirds (64%) are male. By occupation, small business owners (35%) and office workers (30%) were dominant, and a total of 18% were college or graduate students (SMG 2013). There were 644 members active as of July 2014 (http://club.seoul.go.kr/member).

The ING expects its members to work on at least one field among the six categories listed in Table 4.2. These can be found on ING's Imagination Board website and reflect topics that citizen proposals to the Imagination Board tend to concentrate around. Citizens can join multiple categories if they wish.
Table 4.2  Six Categories on Which the Imagination Netizen Group Focuses

<table>
<thead>
<tr>
<th>Category</th>
<th>Major contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy</td>
<td>Local development, New Town projects, Urban planning, Industry, Land use, Employment, and Investment</td>
</tr>
<tr>
<td>Culture</td>
<td>City competitiveness, Culture infrastructure, and Tourism</td>
</tr>
<tr>
<td>Social welfare</td>
<td>Low-income class support, Women’s welfare, Senior welfare, Disabled individuals, and Homelessness</td>
</tr>
<tr>
<td>Environment</td>
<td>Air pollution, Clean city, Green and Eco-city</td>
</tr>
<tr>
<td>Transportation</td>
<td>Subway, Bus, Bicycle, and Transportation policies</td>
</tr>
<tr>
<td>Citizen life</td>
<td>Citizen participation, Public relation to citizens, Security, Openness to citizens in public administration, and Clean administration</td>
</tr>
</tbody>
</table>

Source: Rearranging the Netizen Community of the Imagination Board in e-Seoul

As a result of this, ING members are “opinion leaders” in the Imagination Board. They are generally more skilled and well versed than citizens in general in the Imagination Board’s procedure. ING members participate both offline and online in various steps of the Imagination Board process with their accumulated experience and knowledge (Choh and Oh 2012).

ING members can participate in the four steps of the Imagination Board process that citizens can, as well as in the Project Meeting, which citizens in general cannot. In particular, they are significantly involved in the suggestion of policy ideas to the Imagination Board and actively participating in the discussion and debate about them.

Thus, ING plays an important role in the steps of debate online and in the offline Open Meeting. There is two-fold participation in the debate. First, members can bring citizen proposals made on the Imagination Board to the ING website to discuss among ING members (http://club.seoul.go.kr/board/board.jsp). Then, some ING members join in the regular Imagination Board online debate.
In Project Meetings, ING members are able to participate to discuss what proposals should go the Open Meeting, whereas other citizens are not. As a result of this process, ING members may debate with officials in related departments and professionals as representatives of the general citizenry. According to Kim (2010), officials and experts tend to seek the efficiency of the policy rather than the actual needs of recipients and ING members represent citizens at the Project Meeting.

As shown in Table 4.3, in an analysis of the Imagination Board by Cho and Oh (2012) for six months in 2011, ING members were only a small portion (6%) of the total citizens connecting but made a high proportion (19.5%) of the total suggestions. Furthermore, approximately 25% of all ING members posted proposals during this period, with an average of 6.01 suggestions per member.

In 2012, a total of 7% of citizens (approximately 700,000 people) of Seoul registered in e-Seoul, and 2,626 citizens posted 4,869 ideas on the Imagination Board. Among them, a small number of ING members made a significant proportion of these posts.

Table 4.3  Participants and Suggestions at the Stage of Citizen Proposals from January 2011 to June 2011

<table>
<thead>
<tr>
<th></th>
<th>Citizens</th>
<th>ING</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of persons</td>
<td>2,468 (94.0%)</td>
<td>158 (6.0%)</td>
<td>2,626 (100.0%)</td>
</tr>
<tr>
<td>Suggestions</td>
<td>3,919 (80.5%)</td>
<td>950 (19.5%)</td>
<td>4,869 (100.0%)</td>
</tr>
<tr>
<td>Suggestions per person</td>
<td>1.59</td>
<td>6.01</td>
<td>1.85</td>
</tr>
</tbody>
</table>

Source: Cho and Oh (2012)
As reviewed here, the result of ING’s well organized activities related to the Imagination Board and SMG support of its activities are linked to each other. SMG provides a formal space for ING members within e-Seoul and access to steps in the Imagination Board processes that are not available to citizens generally. The ING has significant influence in the steps where citizens are able to participate in the making recommendations and discussing policies in the Imagination Board process. Thus, as Cho and Oh (2012) find, ING member opinions tend to be disproportionately influential.

4.2 Types of Proposals Approved

The initial elimination of citizen proposals is based on technical and non-policy factors. For example, the SMG’s first screening is frequently because the proposals relate to the duties of the national government or the 25 boroughs. Considering the geographic location and its status as the Capital of Korea, citizens may propose things related to the national government. According to Hwang (2012) and Choh (2009), citizens often do not understand precisely what suggestions and policy matters are specifically within SMG powers to deal with. Approximately 20% of total postings tend to not be within SMG’s duties. These postings are ruled out in the initial step. If proposals are valuable to discuss with national or other municipal governments, they are moved to the national government’s discussion board (shinmoongo.go.kr) or other boroughs’ discussion boards (SMG 2013).

After these were eliminated in the period between 2006 and 2011, there were 109,123 left. Of these, 5,791 were selected for debate online. As noted, 1,479 of these continued after the Project Meeting, 383 were considered in an Open Meeting, and 324 were eventually implemented by the SMG.
Table 4.4 below organizes the total citizen proposals into general categories used by the SMG. This material came from an internal report of SMG, and it shows the result of differences in the calculation of the initial screening. Table 4.2 does not include data from 2011. However, the data herein is useful for understanding what types of suggestions citizens posted.

Table 4.4 Total Citizen Proposals by Category among SMG

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Public Transportation</th>
<th>Land use/Housing/Security</th>
<th>Environment</th>
<th>Welfare</th>
<th>Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2010</td>
<td>71,665</td>
<td>35,047 (48.9%)</td>
<td>15,180 (21.8%)</td>
<td>10,323</td>
<td>7,658</td>
<td>3,457</td>
</tr>
</tbody>
</table>

Source: Data from the Internal Statistics of Seoul Metropolitan Government 2011

During the above period, 71,665 suggestions were accepted for consideration on the Imagination Board. Approximately 49% of all posts concerned public transportation. The second largest portion regarded land use, housing, and security (22%), followed by environmental issues (14%). Welfare (11%) and cultural (5%) issues were of relatively lower concern for citizens. Compared with the Appeal to the Mayor, transportation, housing, and environment-related appeals had the same rankings.

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32 Welfare deals with women, seniors, children, and individuals with disabilities.

33 Culture includes culture, art, sports-related activities, and tourism.
In contrast, however, cultural proposals received the largest number of approvals (49%) of all considered on the Imagination Board from 2006 to 2010. Welfare (19%), general administration (16%), and environment (11%) followed. Transportation proposals, by far the largest number of suggestions received, had the lowest number (5%) of total approvals during this period.

Thus, among the extremely small number of citizen suggestions implemented by the SMG, there was an inverse relationship between transportation, with the highest total number of suggestions and cultural topics, with the highest number of suggestions approved but smallest number of suggestion. Two reasons have been suggested for this in the case of transportation. They are their cost and the need for a revision of local laws and regulations. For instance, using motorcycles for emergency services and adding a remaining time indicator on traffic lights for pedestrian crossings were accepted policies from transportation suggestions. In general, low financial cost and high public support are likely to foster approval of proposals (Hwang 2012).

4.3 current Status of E-Seoul

4.3.1 Three Examples of Imagination Board Initiated Implemented Policies

Even with the very limited influence of citizens in SMG policy making, there have been instances in which productive actions have resulted from citizen’s Imagination Board proposals.

The examples related here to 1) public transportation, 2) welfare, and 3) culture issues. The first case involves the pedestrian use of bridges. In January 2007, Dongwoo Shin, who was the borough mayor of Kangdong at that time, suggested via
the Imagination Board that Gwangjin-gyo, a bridge located over the Han River, Seoul's major water way, needed to be made more pedestrian-friendly. Though there are a total 25 bridges in the Seoul Metropolitan Area, none were pedestrian-friendly at the time. All bridges had a pedestrian path on both sides, but they were not easily accessible and had no space to for citizens to rest and enjoy the scenery.

Once the suggestion was posted, citizen responses on the Imagination Board agreed that people should be able to cross the Han River on foot or bicycle as well as by car. Citizens also added ideas to the original posting, such as making a riverfront café and viewing space on the bridge.

As the suggestion moved along in the policymaking process, both professionals and public officials supported making an exemplary space that combined pedestrian, bicycle, and observation platforms on the bridge. The SMG suggested two possible acceptable options: 1) no cars on weekends, and 2) green space construction on the bridge.

As a result of the suggestions, Gwangjin-gyo Bridge was remodeled to be more pedestrian-friendly with an observation platform and rest space. Through analysis of transportation patterns, the SMG was able to limit costs by manipulating the space and transportation patterns necessary for creating a suitable rest and recreation space for citizens. Pedestrian and bicycle use expanded on the Gwangjin-gyo Bridge, and it has since become a model of balance between transportation and pedestrian space. The successful result of the Gwangjin-gyo Bridge has influenced other bridges in Seoul, and other municipalities have conducted investigations of their own bridges in order to build pedestrian rest and recreation areas (SMG 2012).
The second example was posted by a woman in December 2008, requesting free health examinations for women to be provided by the SMG, particularly for women in their 20s and 30s. Women in this age range are more likely to have children, and therefore require more physical check-ups.

This posting was particularly supported by young females and reflected what had become a major issue both in Seoul and at the national level. The national government was considering policies related to lower birth rates and maternal health issues at that time. If the SMG adopted the type of policy proposed, the national government had a plan to expand it to the rest of nation (The Ministry of Health and Welfare in Korea, 2010).

This posting was moved to a final decision meeting where citizens, public officials, and professionals agreed on the feasibility of the project to promote women's health, particularly in the case of marginalized groups such as unemployed women and low-income housewives. Even though women of all ages require check-ups, the government determined it would be impossible to provide universal care for all women due to lack of personnel and costs. Therefore, women from age 20 to 40 who were single income housewives34 were to be the first recipients of the policy's benefits (http://www.asiatoday.co.kr/news/view.asp?seq=330463).

Large expenditures were required to complete the project, but welfare and healthcare issues for women had become sensitive and essential themes for both citizens and government. From September 2009 through 2010, the SMG provided cervical cancer examinations and check-ups for an estimated 261,100 women in Seoul.

34 Unemployed 20-40 year-old women who are married, divorced, or cohabited were recipients of free check-ups.
within contracted hospitals and public health centers in the 25 boroughs (SMG 2012). Such services were provided as part of the free health check-up policy. Unfortunately, in early 2011, the free health check-ups were suspended due to budgetary problems. This issue was argued within the 2012 national election and continues to be a policy of concern for women and the welfare field.

The last example is a 2008 suggestion concerning Korean movies with English subtitles. A citizen suggested that Korean movies have English subtitles when released in Seoul movie theaters. Since foreigners cannot understand and fully enjoy Korean movies without subtitles, policy support would be desirable to promote subtitles for Korean movies. Part of Korean culture—called “Hanryu”—is reflected in people’s desire to expand it to foreigners and other countries. Up until this time, foreigners in Seoul or Korea as a whole could not enjoy Korean movies due to the lack of English subtitles, despite their interest in Korean movies and culture.

This posting was supported on the Imagination Board, and steps were approved to add English subtitles to Korean movies so they and other cultural content could be expanded abroad and made accessible to foreigners within the country. Some participants suggested the additional insertion of Japanese and Chinese subtitles into Korean movies as well.

As a pilot program, two films with English and Chinese subtitles were released initially in 2009 in Seoul’s theaters. The Department of Culture and Industry of SMG was asked to cooperate with Korea’s Ministry of Culture and Tourism in order to support translation for foreign audiences. These two government agencies recruited movie theaters to release subtitle services for foreigners. The biggest movie theater company, CGV, made a contract with the SMG to release English subtitles in
Korean movies. In 2010, the showing of such films was increased to a total of four movie theaters. Korean movies with English subtitles are shown three times a day in selected movie theaters. As of 2012, 29 cinemas in Seoul provided English, Chinese, and Japanese subtitles at least once a day.

Overall, the participatory aspects of e-Seoul allowing for citizen influence in policymaking fit into, rather than change, the existing political system and distribution of power. In order to better understand its influence, it is also necessary to examine the role of the SMG mayors.

4.3.2 Leadership of the Mayor in E-Seoul

The focus shifts here to the general role and influence of the mayors of Seoul in the development and operation of e-Seoul. Their influence has ensured its operation continues to fit into the existing political system without significantly increasing the influence of citizens in policymaking and also contributes to mayoral influence and power.

It is important to note that Seoul’s political leadership can affect the operation and direction of its e-governance (Choh 2009; Byun & Choi 2011; Hwang 2012). The current process for democratically electing Seoul’s mayor began in 1995. Mayoral administrations have varied between the conservative and relatively

37 http://bntnews.hankyung.com/apps/news=2012091111015543&mode=sub_view
progressive parties, and each has had its own style of leadership and communication with citizens (Lim 2010). As both politician and facilitator, the mayor is tasked with encouraging and managing effective communication and interaction between governments and citizens.

The mayor of Seoul, sometimes referred to as “The Little President” of Korea, has a special role in Korean politics. It is considered the second most powerful position, just below the President. The Seoul Metropolitan Area has a quarter of Korea’s population, and it is the location of the primary economic and financial power of Korea (SMG 2011). In fact, the mayor of Seoul is always considered a potential presidential nominee within Korea. As a result, the press and general citizens of Korea regard the mayor of Seoul as a significant leader.

As reviewed, the mayors who were directly elected by citizens’ votes initiated e-Seoul’s four major participatory menus. Mayor Koh launched Appeal to the Mayor in 1998, Mayor Lee transferred it to the online system. Mayor Lee initiated the Cyber Forum in 2003, and Mayor Oh initiated the Imagination Board in 2006. Current Mayor Park is continuing to manage and expand on these menus, and, in doing so, enhance his own leadership and political goals. Mayor Park also initiated the expansion of SNS in Seoul’s e-governance.

Two mayors, Oh Sehoon (2006-2011) and Park Wonsoon (2011-the present) are particularly useful to consider in this context. Mayor Oh initiated the Imagination Board and continually concentrated on the development of the system. He considered the Imagination Board as the core channel for interaction with citizens and to show his achievements in new communication technology (Kang 2009; Lim 2010; Hwang 2012). Mayor Oh concentrated on using the Imagination Board, in part, as a
public relations tool with citizens. In fact, he was never absent from the Open Meeting offline and volunteered as a presenter to help with specific citizen proposals (Choh 2009; Lim 2010; Kim 2011).

Mayor Park began his first term after a special election in October 2011. He was re-elected to a second term in June 2014 that runs until June 2018. Park has concentrated on effective communication with citizens from the beginning of his regime. As an NGO leader prior to his election as mayor, he was already very familiar with intercommunication between citizens and experienced at SNS use from an individual and organizational perspective. Using SNS has been seen as a more prompt and intuitive way to build upon e-governance and to improve ties between politicians and citizens. Currently, the convergence of SNS and e-governance has spread not only to SMG but to various levels of government for promoting responsiveness and rapidity of governance on a global scale (WEEC 2012). There are now Facebook and Twitter communication links with official accounts of the mayor, SMG, and each department, bureau, and task force team (Byun & Choi 2012).

During each mayoral term, e-Seoul has changed its style and major participatory menu following the respective mayor’s leadership and political direction. E-Seoul is basically administered by agencies in the Mayor’s Office, the mayor has played a major role in expanding and adapting e-Seoul to new ICT, and mayors have used e-Seoul through Appeal to the Mayor and newer SNS-related links to build communication and public support. The Citizen Suggestion Unit (CSU) and New
Media Unit\textsuperscript{38} (NMU) are the main bodies dealing with SNS and direct citizen involvement in communication with the mayor.

According to research (Choh and Oh 2012; Hwang 2012; Ahn and Bretschneider 2012), the success of the e-governance website in Seoul is based on the political leadership of the municipal administration. Appeal to the Mayor is now available to facilitate direct communication between citizens and the mayor via SNS. This can be interpreted as a strategy for building political support for the mayor, and it has been actively encouraging communication between the given political system and citizens.

The Mayor’s office operates official Twitter and Facebook accounts. Mayor Park has more than 200,000 Twitter followers and communicates with them regularly (SMG 2012). Since January 2013, citizens can participate in the Imagination Board via SNS. They can comment via the official Twitter and Facebook accounts of SMG. It is not set up to post citizen proposals via SNS; however, citizens can partly participate in the Imagination Board process via the SNS without registering through e-Seoul. According to the SMG (http://oasis.seoul.go.kr/oasis/introduce.jsp#guide), only registered members can post Imagination Board proposals on their own SNS accounts and share and vote with other citizens. Furthermore, citizens can intercommunicate with the mayor via Facebook and Twitter. Current Mayor Park, Wonsoon opened and uses his personal accounts on SNS with citizens. He suggests a discussion or specific issue to exchange opinions with citizens (Kim 2012; Lim 2013),

\textsuperscript{38}NMU is part of the Mayor’s Office. In general, it takes charge of social media, Internet media, and public relations with citizens via the mass media.
and citizens can ask or make suggestions about issues within Seoul and hear back from him.

Figure 4.2 Citizen’s Petition Request Using Twitter and Mayor’s Respond in Twitter
Figure 4.2 is an example of SNS communication between citizens and the mayor on a particular issue. In July 2012, a Twitter user in Seoul posted a message on the mayor’s account that a sewer cap was out of order in the core business district in Seoul, causing potential hazards for automobiles and pedestrians. Mayor Park immediately acted to repair and replace the sewer cap. Two days after the citizen post, the mayor responded on his Twitter that the sewer cap was repaired and in safe condition. Many Twitter users in Seoul expressed their satisfaction with the swift response from the mayor and SMG. Several hundred citizens mentioned the story on Twitter.

4.4 Evaluation and Conclusion

Although e-Seoul is internationally ranked as the best in the world, there has been limited detailed research on the evaluation of its participatory dimensions and user satisfaction. In reviewing e-Seoul’s four major participatory menus, this study finds several significant issues. Overall, it has improved access for a number of citizens to the existing municipal governance system. E-Seoul has created new and more direct ways for citizen participation in policymaking and governance processes. However, there are limitations on the extent of participation. First, a number of citizens do not have online access, and, of those that do, far from all use it for participation in governance.

It is also important to examine who is actually linked to e-Seoul and the Imagination Board. The total population of Seoul is approximately 10.5 million, and 945,699 were e-Seoul members in 2012 (SMG 2012). Among e-Seoul members,
approximately 70% live in Seoul. This amounted to only 6.5% of its population. According to SMG (2012), the number registered on the Imagination Board was approximately 50,000 people in 2012, or just 0.5% of Seoul’s total population. The number of those registered on the Imagination Board who actually participated in the first and second quarter of 2011 was 2,468 (Cho and Oh 2012). In contrast, the number of members of the advocacy group ING was 620 in 2011, and a total of 158 members made Imagination Board postings in the first and second quarter of 2011 (Cho and Oh).

E-Seoul participation opportunities are created by SMG, and the SMG retains important control over what is dealt with on e-Seoul’s formal participation sites. In this manner, the SMG has significant control over citizen access to and use of e-Seoul.

As with services, e-Seoul has increased citizens’ ability to communicate with SMG and officials about individual issues and problems. This was generally the case with the Cyber Forum, and is for Appeal to the Mayor, Imagination Board, and most recently SNS. Using the Cyber Forum, citizens had a means to communicate with SMG about views on current issues of concern to the government. Appeal to the Mayor can provide citizens with the ability to communicate opinions directly to the mayor in order to raise and solve problems. Using the Imagination Board, SMG provides citizens with a means to suggest policies and be involved in debating their approval or rejection. These efforts offer limited influence to citizens in general, and the dimensions of e-Seoul fit into the existing power structure of the Seoul political system.
In sum, the four major participatory menus of e-Seoul are a government-driven system of improvement to involve citizens in municipal governance, increase citizens’ ability to communicate with SMG, share and exchange feedback between government and citizens, and to a limited degree enhance citizen involvement in the policymaking processes. Additionally, increasing usage of SNS in formal e-governance is also a focal point of e-Seoul. As in the above example of the sewer cap repair needed via Twitter, citizens can use SNS as a tool to connect with the mayor, citizens, and SMG officials.

SMG mayors have played a major role in shaping opportunities for citizens to communicate with officials and engage in policymaking processes. In general, the primary result has been to enhance the political power of the mayor, and, in relation to citizens and policymaking, participation in e-Seoul has fit into the existing political environment and power structure. There have been productive citizen uses of participatory menus but no real increase in their policy influence through e-Seoul. The formal dimension of e-Seoul most designed to foster citizen participation in policymaking, the Imagination Board, is completely dominated by the SMG, and the influence that citizens do have in its process is disproportionately exercised by the SMG-backed ING advocacy group. Thus, the extent to which it has significantly increased citizen influence in policymaking is quite limited. The existing power structure and political leadership give major institutional support to e-Seoul participation. General findings, limitations, and suggested further research will be discussed in the next chapter.
Chapter 5

CONCLUSIONS

5.1 Introduction

The development and operation of formal urban e-governance system is a widespread and important development and its nature is evolving as Information and Communication Technology (ICT) is rapidly changing. Governments initially utilized ICT within their own management structure to promote efficiency, transparency, accountability, and more open communication (UN 2002; SDI 2007; WEEC 2013). The relationship between ICT development and governance has also been accompanied by new e-governance dimensions that are intended to provide information and services to citizens and foster citizen participation in policy making (UN 2002; OECD 2008; Dawes 2008; WEEC 2013). A goal has been to allow citizens to interact more easily with government without barriers such as security, red tape, and institutional difficulties (UN 2002; Lim 2010; WEEC 2013).

Because of this perceived importance of formal e-governance, several international and academic organizations have made comparisons and ranked national and municipal e-governance systems in terms of such things as their ICT infrastructure, institutional support, usage, provided contents, and accessibility. As indicted in Chapter One, Korea and the Seoul Metropolitan Government (SMG) have consistently had the highest rankings among nations and municipalities in these global evaluations (UN 2010). The strong role of the Korean government in building an advanced ICT infrastructure and fostering e-governance in the country and the very high percentage
of citizens with advanced connections to the Internet have been important to e-Seoul’s development and high reputation.

E-Seoul has been ranked first by the World E-governance Evaluation Committee (WECC) that has been the primary unit making international evaluations of urban e-governance. In each of its biennial comparisons beginning in 2003 to the most recent in 2013, Seoul has been at the top of its surveys (WECC 2013). Among the five categories of the measures WECC uses, Seoul has been consistently been ranked first in four—privacy, usability, service, and citizen participation—and second in content (WECC 2013). Technical support is also a crucial factor in the ranking of e-Seoul (WECC 2011). Studies by the UN (2009) and the World Economic Forum (2010) have emphasized reliability and feedback as strengths of e-Seoul.

However, these international assessments have tended to give limited attention to the ways the urban e-governance systems they rank have individually evolved or go into detail in terms of how their various dimensions actually perform. This is true in the case of e-Seoul and, in addition, little systematic research on these factors has been done by others. Thus, the more detailed research on these matters undertaken in this study provide contributions to better understanding the overall evolution of e-Seoul in terms of its growth, current citizen uses in relation to the provision of information and services, citizen communication with officials, citizen participation in the policy process, and how e-Seoul has affected the role of citizens in the existing political environment and power structure of Seoul’s governance.

5.2 The Evolution of E-Seoul

Seoul is the center of socio-economic, and culture in Korea was well as its capital city. It has substantial resources to utilize for its own overall development
and for the budget and personnel to build e-Seoul (KIPA 2004; SDI 2007; WEEC 2011). In general, Seoul’s citizens are well educated and have a higher average income than other areas in the country (KIPA 2012).

The SMG’s Department of Information and Planning (DIP) has basic responsibility for e-Seoul. It is composed of 5 sub-departments, 25 teams, and 1 task force center. The department manages 957 employees, including 528 borough-level workers. The total budget of the e-government operation was approximately 110 million USD in 2011.

E-Seoul’s evolution can be divided into four stages (Roh 2007; Choh 2009). They are 1) information based governance, 2) two-way communication governance, 3) participatory governance, and 4) ubiquitous governance from the perspectives of citizens.

The first step of e-Seoul’s development was from the late 1990s to 2002. In 1998, President Kim, Daejoong, when he started his presidential term (1998-2003), declared an ICT Korea strategy to create a new grow machine to foster Korea’s social-economic development. There is no doubt that Korea’s advanced status in ICT and the leading role of the national government contributed to fostering the overall ITC infrastructure that facilitated the SMG’s building of e-Seoul. At this time, Seoul and its 25 boroughs, utilized their administrative resources to create internal Internet linkages through the use of high speed Internet cable.

In addition, the direct-elected mayor system established for Seoul in the mid-1990s facilitated a new emerging type of governance that incorporated democratic processes and enhanced citizen interaction with officials.
The second step was to build a Seoul portal (2002-2006). Following the 'Information Seoul Master Plan', e-Seoul set up Internet-based information and public services for citizens. Dimensions provided in this period included citizen ability to communicate with the mayor and the SMG’s use of e-Seoul to ask for citizen opinions concerning policy issues.

The third stage that followed was the 'Ubiquitous Seoul Mater Plan'. As part of it, Mayor Oh, Sehoon introduced more direct participatory governance via the Internet by launching the Imagination Board and mobile-based services were initially set up in this period to foster citizen-official communication. Further, a number of information and service menus accessible on an ICT Mobile Applications feature known as 'Mobile Seoul 702' was initiated in 2007. It consists of a mobile front office for civic services and a mobile back office for internal management processes. This system is rooted on the integration of both a wired and wireless system. Fifteen mobile phone applications are included and allow time-space compression for communication.

In 2012, Seoul’s mobile access rate was 23% of all provided public contents (SMG 2012). All e-governance activities are linked. In general, ubiquitous initiatives have been realized with on and off-line integration, and mobile devices in the e-governance website of Seoul. In particular, Social Network Services (SNS) became a complimentary tool for citizen participation. According to Byun & Choi (2011), the SMG connects citizens via SNS tools, such as Twitter, Me2day, and Facebook. As of March 2011, the SMG had 41,600 citizens as followers in Twitter. Also, there were 16,000 Twitter postings by citizens, and transportation service-related posts made up 50% of all posts.
Now, e-Seoul is in its fourth step, the ‘Smart Seoul Plan’, which began in 2011. Based on a ubiquitous computing, the system now has SNS participatory and casual communication. To foster this stage, more changes were introduced to the e-Seoul website design in March 2012 based on the shift to the word-press system that is an open-source based blog tool. This further opens e-Seoul’s website to the public and helps citizens to connect to agencies with a one-stop and one-click. The SMG is the first and only Korean municipality to utilize a word-press based website as opposed to one that is HTML-based.

The SMG has invested in building and enhancing e-Seoul administratively and financially. It also continued to adopt new technological to expand the amount and accessibility of governmental information and services available. The information and service provision of e-Seoul has increased year by year in total usage (SMG 2013) and the categories and provided menus have been divided into customized dimensions for citizens fitting with user-oriented patterns.

5.3 E-Seoul Information, Services, and Citizen Participation

This study particularly focused on e-governance in e-Seoul in terms of the development and current status of providing citizens with information, public services and their participation in policy making that are evolving and their fit with e-Seoul’s high international rankings.

5.3.1 Information and Service Provision

E-Seoul provides approximately 2,000 information categories in the system to help citizens to more easily deal with administration matters and services electronically. E-Seoul information provision has evolved to more customized and
detailed contents in response to citizen demands and to facilitate agency work. The growth in the application of mobile devices is an important factor in increasing quick access to a growing range of information related to government agencies and services as well as about the social, economic, and cultural aspects of the city (SI 2013). Thus, E-Seoul system is continuously uploading new information and also customizing and refining information for particular groups. On the subject of usability, this website is highly accessible to various users.

SMG log-file data from 2011 was used and contained data on the usage of various types of information in terms of total hits and total visitors. A total of 3,187,525 hits were recorded in 2011 for all information sections (SMG 2012). SMG News (55.1%) was used most frequently, with 1,756,664 hits in 2011. In terms of content, Administrative Information (22.7%) has finance and project processes and results data. A total 723,871 hits were recorded here in 2011. The “About Seoul” section had 11.3% of all hits related to information, totaling 359,097, in 2011.

The analysis in this study concerning information focused on the ‘Sectional Information’ that contains information about a range of available services and programs and resources and is linked to other government public service and citizen participation menus. In this sense, though this section only made up 10.9% of all hits in 2011, it is an important part of e-Seoul’s information provision. There were 347,898 total hits in 2011 broken down into each of the six Sectional Information categories. Three of the categories had over 80,000 hits, with transportation, culture, and welfare with 24.3%, 23.9% and 23.5% of the total, respectively. This menu has increased significantly and marked 3.2 million total hits in 2014.
Service provision has also involved continuous expansion. The current number available on e-Seoul can be broken down into 680 specific services with 170 related websites. Approximately 2 million service hits were made by citizens in 2011 (SMG 2012). In a broad sense, e-Seoul services can be viewed as having six major parts that are most used. As of December 2011, these included: 1) Request Portal guiding service use for citizens, 2) Internet Request dealing with citizens’ petitions and claims, 3) Taxes including payment and claims, 4) Integrated Reservation for all public facilities and programs, 5) Transportation Service dealing with claims and real-time public transportation schedules, and 6) Real Property Service dealing with certificate and assessments. Among them, the three service categories most frequently used in 2010 were 1) Internet Requests (16%), 2) Integrated Reservations (16%), and Taxes (11%).

The Internet Request Category had 577,344 total hits in 2010 (SMG 2011) and it launched in 2004. This category provides a way for citizens who are inconvenienced by red tape-related administrative processes to submit a claim online (SMG 2013). SMG offers an Integrated Reservation Service (IRS) for citizens in the city and 25 boroughs for program and facility reservations. The total hits it had in 2010 were approximately 580,000, including 157,171 for making reservations. More recently, a total of 1,100,388 hits were made in 2014. Citizens who want to make reservations for public programs can do so for approximately 540 public facilities and programs. The Tax category had approximately 350,000 total hits in 2010 but grew substantially to 4.4 million cases of tax payments in 2014.

The study also found that before going to a service, citizens can obtain information via e-Seoul about the content of services and how to use them. This user-
centric public service system, for example, can reduce the barrier of time and space for services. In the case of reservations and tax payment, citizen can take their own prompt action without physically visiting the administrative site. Also, citizens can confirm and modify their action in the website easily. Similarly, certificate and other payment services are available via one-stop and one-click and include a security and protection system for the citizen. Thus, e-Seoul provided services are available 24 hours per day, seven days a week.

5.3.2 Citizen Participation in E-Seoul

This dissertation focused on specific ways, in which citizens can use e-Seoul to communicate with the mayor, comment on topics set out by the SMG and, particularly, directly participate in recommending and evaluating specific policy proposals. Citizens can use e-Seoul to communicate with public officials and mayor in a number of ways. Three specific menus, Cyber Forum, Appeal to Mayor, and Imagination Board, were examined in detail.

The Cyber Forum was created by the SMG in 2003 to permit it to collect citizen opinions on topics of concern to it in policy issues in the Seoul area. The discussion topics were initially suggested by government officials from various SMG units and finally selected by the Mayor's Office. All technical assistance and website design was done by DIP and was divided into “adult” and “juvenile” sections. In the general adult section, there were monthly discussion topics selected by the Mayor's Office, in consultation with other related SMG agencies. A total of 106 SMG topics were debated here, with 10,976 total individual postings about them and 412,298 total response comments from 2003 through the end of 2011. In the juvenile section, the
primary goal was to facilitate civic education among young people and provide their involvement in public discussion on the government website (SMG 2004). A total of 110 themes were debated in the juvenile forum, with a total of 4,440 individual postings and 137,734 responses. Also, the discussion topics were selected by the Mayor's office.

The Cyber Forum was basically eliminated in 2011 and some of its functions integrated with the Imagination board. The fact that Cyber Forum allowed citizen and youth opinions to be heard by officials that might not otherwise have happened made possible some citizen influence but within a framework determined by the SMG.

Appeal to the Mayor was the first e-Seoul direct form of communication between citizens and the mayor. The online form of Appeal to the Mayor began in August 1998, and from then through 2003, it operated both offline and online. According to the SMG White Paper (2007), online requests were only about 15% of the total from 1998 through 2002. However, by 2003, approximately 90% were in the form of online requests. From 2003 through 2011, a total of 45,441 citizens' appeals were posted. Appeal to the Mayor recorded transportation (21.7%) as the most frequent issue. Housing (15.4%), environment (13.1%), general administration (11.8%), and others (10.8%) followed in their percentage of appeal topics. Women and welfare (9.9%), urban planning (8.3%), and industry and culture (7.4%) were each under 10%. From 2012 to 2014, a total of 19,737 citizens' appeals were posted here via both SMG official website and SNS accounts.

Thus, neither the Cyber Forum nor Appeal to the Mayor were designed or intended to and did not increase the direct participation and influence of citizens in
SMG policy making. In contrast, SMG created the Imagination Board in 2006 as a site to allow citizens registered on both e-Seoul and the Imagination Board to propose policies, comment on those considered for further discussion and express whether they favor or oppose proposals that reach the final step of Imagination Board consideration. According to the SMG (2011), it is intended to raise democratic citizen participation and better understand citizens' needs and demands. A total of 136,379 citizen proposals were debated here and finally 324 ideas became actual policies from 2006 through 2011. However, this relationship of citizen proposals and formally adopted policies suggests that the actual operation of the Imagination Board is a limited means to exercise policy involvement. The dissertation found that there were 12 online and offline steps in the processes of the Imagination Board. All of these steps, after policy proposals are made by citizens, are organized, managed, and controlled by SMG officials and mayor. In the current term by Mayor Park, the Imagination Board acceptance rate increased over that of the previous Mayor Oh. From 2012 to 2014, a total of 23,828 citizen proposals were debated here and 360 ideas became actual policies, slightly more than during Oh’s term. However, a breakdown of the data is unavailable.

Further, there is a small percentages of Seoul’s citizens who are registered e-Seoul members and far fewer who are registered Imagination Board members. Both of these are required for citizens to participate. Of those who have participated, an advocacy group, the ING (that has had SMG backing), has been disproportionately represented. The ING has accounted for approximately 1% of all Imagination Board citizen members but they have been discussion leaders and skillful participants in seeking to exercise influence in the Imagination Board discourse.
Of the tens of thousands of citizen policy proposals submitted to the Imagination Board since its creation only 324 had been adopted as of the end of 2011. Budgetary, legal, and political issues have caused the SMG to eliminate most proposals. Yet, it must be noted that there have been a few important matters that have been adopted as the result of citizen proposals. The pedestrian use of bridges is an example. In January 2007, Dongwoo Shin, who was the borough mayor of Kangdong at that time, suggested via the Imagination Board that Gwangjin-gyo, a bridge located over the Han River, Seoul’s major waterway, needed to be made more pedestrian-friendly. Though there are 25 bridges in the Seoul Metropolitan Area, none were pedestrian-friendly at the time. As a result of the suggestions, Gwangjin-gyo Bridge was remodeled to be more pedestrian-friendly with an observation platform and rest space. Pedestrian and bicycle use expanded on it, and it has since become a model of balance between transportation and pedestrian space.

Another example was a proposal posted by a woman in December 2008, requesting free health examinations for women to be provided by the SMG, particularly for women in their 20s and 30s. Women in this age range are more likely to have children, and therefore require more physical check-ups. This posting was moved to a final decision meeting where citizens, public officials, and professionals agreed on the feasibility of the project to promote women’s health, particularly in the case of marginalized groups such as unemployed women and low-income housewives. From September 2009 through 2010, the SMG provided cervical cancer examinations and check-ups for an estimated 261,100 women in Seoul within contracted hospitals and public health centers in the 25 boroughs (SMG 2012). However, in early 2011, the free health check-ups were suspended due to budgetary problems. This issue was
argued within the 2012 national election and continues to be a policy of concern for women and the welfare field.

From an overall perspective, then, E-Seoul’s information and ability to use it and the expansion of services have been and are continuing to be built over time. However, the study shows that citizen participation in policy-making is limited in several important ways. The political powerful mayors of SMG have been a major influence on the way e-Seoul has developed so that it has far more facilitated the ability of citizens to get information and services and communicate with the offices of elected officials and administrators, especially the mayors, than to increase citizen influence in policy making. Thus, based on the case study research, e-Seoul’s provision of information and services to citizen fits with its high ranking but it is not the case in terms of enhancing citizen influence in policy making.

5.4 Further Research

On the basis of the finding of this dissertation, a number of directions for further research can be suggested. First, more and methodologically better surveys of citizen use and assessment of e-Seoul that includes breakdowns by income, age, and gender should be undertaken. Existing data is quite limited and little has been written about the fact that only one-tenth of Seoul’s citizens were registered for e-Seoul in 2012, that very few participate in the Imagination Board and about which subsets of the population are and are not formally linked to e-Seoul and the Imagination Board and why.

Also, research on the roles and goals of Seoul governmental actors and agencies, particularly the mayor, in the continuing evolution and operation of e-Seoul, especially in relation to citizen participation in policy-making and governance are
needed. This would add to the understanding of the evolution and operation of e-Seoul within the broader Seoul political system and power structure.

More detailed research is desirable on the Imagination Board's advocacy group ING. This dissertation focused on the ING as a citizen advocate group active on the Imagination Board. Future research would build knowledge of the internal organization and actions of ING, its relationship with SMG, and the existence and functions of any other advocacy groups that exist in relation to the Imagination Board or other aspects of e-Seoul. The more accurate and in-depth analysis of participatory and advocacy groups will be helpful to understand the actual use and participation in formal e-governance of citizens.

Comparative research would be desirable on citizen use of information and services and formal e-governance participation broken down by boroughs for both e-Seoul and the 25 e-governance systems of the boroughs. The 25 boroughs have their own socio-economic, cultural, and political dimensions and resources to manage e-governance.

As global scale comparisons indicate (WECC 2011; UN 2009), major Asian cities such as Tokyo and Singapore are ranked within top 10 in e-governance performance evaluation. Thus, comparisons of e-Seoul with formal e-governance systems in other major Asian Cities could be part of future study, particularly in relation to their evolution, relationship to their area’s metropolitan government, and information, services, and citizen policy participation dimensions.

There is one more particularly important direction for research. As the general e-governance research literature indicates, there are a growing number of cases globally of citizen-initiated non-formal governmental social media being used to
foster citizen influence in policy areas in democratic nations as well as to challenge or overthrow authoritarian governments. “Occupy the Wall Street” and the “Arab Spring” have been examples of this. This study has found, a quite small number of Seoul citizens actually use the formal system of e-Seoul provided by the SMG and their benefits are far more related to electronic information and services rather than to an increase in their influence in the political system. Thus, it would be desirable to undertake research on the evolution and dynamics in the Seoul area of the spontaneous citizen and advocacy group use of non-e-Seoul social media to confront and contest the existing power structure. Research on the extent, use by whom, and outcomes of citizen use of social media outside of e-Seoul, to exercise political influence in the governance system would provide data on the types and number of policy-related advocacy websites and well-known bloggers that are part of Seoul’s overall Internet e-governance system. This would allow a comparison of citizen policy influence gained through the independent use of social media and the use of e-Seoul.
REFERENCES


- Web sites

  www.kisdi.re.kr

  www.korea.go.kr

  www.oecd.org

  www.si.re.kr

  www.seoul.go.kr

  www.undp.org