

Recent Trends in Public Sector Technological Innovations

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Politics of E-Government: E-Government and the Political Control of Bureaucracy

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This case study reports an innovative e-government experiment by a local government in Seoul, South Korea—Gangnam-gu. A new local political leadership in Gangnam made strategic use of e-government applications to exert greater political control over the local civil service bureaucracy. The authors find that e-government applications possess political properties that can be applied effectively by the political leadership as instruments to improve control over the government bureaucracy as well as to enhance essential government accountability and transparency. The political circumstances underlying e-government development as well as its impact on local government are reported, along with key variables associated with this innovation and directions for future research.

Since their introduction in the early 1990s, electronic government applications (e-government) have been adopted by governments around the world. Advocates of e-government promise increasing economies of scale in providing government services to citizens, improved citizen participation and democratic values, and enhanced government accountability and transparency. With expectations high, the effects of e-government have been studied at various levels of government, with some mixed findings (Lee and Perry 2002; Moon 2002; Norris and Moon 2005; Scott 2006). Some report positive outcomes associated with e-government adoption, such as improvements in the efficiency, availability, and accessibility of public services and the provision of information to citizens (Ke and Wei 2004; Lee 2008; Lee, Tan, and Trimi 2005), while others express disappointment in reaching the promise of transforming government service delivery and improving public trust in government (West 2004). The disappointment seems most pronounced in the areas of e-democracy and online

citizen participation, as they fall short of the promise of facilitating greater citizen participation and communication with the government (Edmiston 2003; Ho 2002; West 2005). Such underutilization of e-government as a medium of citizen participation and a general lack of cases in which e-government applications function as meaningful channels of political communication between citizens and the government has rendered the term “e-government” somewhat synonymous with service-type applications, such as driver’s license renewal, online income tax filing, and parking ticket payment.

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leaders in e-government—South Korea—that demonstrates the transformative potential of e-government as a channel of citizen participation. This case shows how strategic use of e-government can dramatically improve government accountability, responsiveness, and transparency, while allowing citizens to directly influence government decision making. The study reveals that while these improvements are ends in

themselves, they also work as means to create greater political control over the government bureaucracy and its administrators by enhancing accountability to citizens.

In addition, the role of political leadership—a locally elected mayor—is identified as the main motivator behind the e-government effort. The mayor saw political potential in e-government applications as instruments of bureaucratic reform, political control over bureaucracy, enhanced means of generating citizen support, and a way of leveraging citizen support in conflicts with an elected legislature. Furthermore, a set of unique political circumstances motivated the mayor to

adopt some elements of e-government in support of citizen participation as well. Finally, this case provides a useful basis for identifying key variables and hypothesis for future study.

In order to distinguish these participation/communication-type e-government applications from their more administrative counterparts (such as driver's license renewal and online tax payment), a composite term, *e-participation* (electronic participation), is used hereafter.

E-Participation: Potential and Reality

The potential of e-participation in democratic governance has been widely discussed in the literature. Among other things, e-participation is viewed as facilitating greater citizen participation in government decision making and improving government transparency and accountability. New information and communication technologies have dramatically improved the process of searching, selecting, and integrating the vast amount of information generated and used by government and have allowed an unprecedented degree of interactivity between citizens and the government to expand government consultation with citizens during the policy-making process (OECD 2003). Communication between citizens and the government is thought to promote accountability and effectiveness of the government (Stivers 1994), and "moderate levels of participation" ensure the responsiveness of public officials to public demands (Milbrath 1965). E-participation encourages citizens to participate in the decision-making process and influence the topics discussed, as the barriers to participation are significantly lowered, increasing opportunities for citizens to participate in the formulation of public policy (Brewer, Neubauer, and Geiselhart 2006; Stanley and Wear 2004).

E-government increases consultation and communication with citizens and improves the effectiveness of political decision making by making citizens who are aware of the how and why of political decision making and by facilitating their participation in this process (Watson and Mundy 2001). Furthermore, it has been argued that direct expression and communication of citizen preferences in the political process is better, as it reduces distortion compared to indirect expression (deLeon and deLeon 2002), and citizen participation brings legitimacy to the decisions made by public servants and provides checks and balances on the "tyrannical nature of bureaucracies" (Vigoda 2002). Moreover, some research has found that greater citizen participation in the government process leads people to perceive a public agency as significantly more responsive (Halvorsen 2003), and e-participation can improve trust in government, which is perceived to be more responsive to citizens (Tolbert and Mossberger 2006; Welch, Hinnant, and Moon 2005).

Potential abounds; however, much of the democratic potential of e-participation has been largely overlooked (Edmiston 2003; Ho 2002; West 2005). Despite the new possibilities presented by e-participation, traditional methods of citizen participation continue to be important (Furlong and Kerwin 2005), and e-par-

ticipation is the least common activity on government websites in the United States (Thomas and Streib 2003, 2005). This is a curious pattern of adoption, as other aspects of e-government, such as the provision of public services and information, continue to advance rapidly over time, although they provide little, if any, direct online public dialogue or consultation (Scott 2006) and remain mostly in the informational and formative stages of development (Davis and Olson 1985; Edmiston 2003; Lee 2008).

Some have speculated that this may be caused by a lack of political incentives and will (Scott 2006; Vigoda 2002; West 2005), as establishing online channels of direct communication with citizens may pose some political risks (Scott 2006) and policy makers are afraid of a displacement of political representation (Milliman 1982, 86). In addition, opening up new and more technology-intensive channels of communication may invite a different kind of crowd, as cyberorganizations tend to have a more adversarial relationship with the public sector (Brainard 2003).

While political incentives and will—or the lack thereof—are often attributed to the underdevelopment of e-participation in America, this study introduces a case in which strong political incentives and will in fact helped actualize the potential of e-participation. A unique political environment that created a strong incentive for the mayor to

incorporate elements of direct democracy into his administration through e-participation is discussed, as well as the transformative effects this had on the government. The results of this paper are most applicable in the context of young, emergent democratic states, but they may also provide insights into why such technologies have had less impact in developed, older democracies such as the United States.

Data Collection

This case study was part of a larger research project that was conducted by a team of researchers from the Maxwell School at Syracuse University and from Korea University who conducted interviews, examined key documents, and collected and analyzed operation data regarding several areas of e-government service practices in Gangnam-gu (*gu* means "district" in Korean). The areas are determined by their functionality: transaction processing, decision support systems, geographic information systems, enterprise-wide systems, and e-participation systems. For each e-government service area, the research team interviewed project leaders, sponsors, initiators, and executive champions, as well as the staff responsible for different aspects of the online application, such as technology infrastructure, marketing strategy, legal affairs, and human resources.

A total of 45 in-depth, face-to-face interviews were conducted in December 2003, followed by a survey of 287 employees in June 2004 regarding the role of leadership, the personnel management system, and citizen involvement in e-government practice in Gangnam. The interview protocol included questions regarding the history, scope, and management of individual projects, the technology used, the collaboration process among participants, and the

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outcomes and performance of the project. The survey was composed of four parts—an employee survey, a citizen user survey (online and offline users), a business user survey (online and offline users), and an organizational structure of each e-government service. This study primarily uses the interviews with officials who were involved in the development and management of e-participation applications, as well as the results from the online citizen, business, and employee surveys.

The citizen and business surveys for online users measured the level of satisfaction of a random sample of citizens with seven online applications¹ and business users who reported business tax using Gangnam's online business tax report application. The surveys were completed by January 2005. Finally, a survey of 287 employees was conducted in July 2004 that examined their perceptions of the role of leadership, the personnel management system, and the citizen's role in e-government transformation. The interviews were recorded using an electronic recorder; they were first transcribed in Korean, and then translated into English by a professional translation agency.

Gangnam-gu

Gangnam-gu is one of 25 district governments located in the southeastern part of Seoul, South Korea—the capital city of the Republic of Korea. Gangnam is a relatively young part of the city, which urbanized quickly and became one of the most prosperous and wealthy areas in Korea. As of December 2007, Gangnam-gu's population was 60,958, and it occupies 39.5 square kilometers.² At the top of Gangnam-gu's government hierarchy is the mayor, who is locally elected by Gangnam-gu citizens. The vice mayor is assigned among the senior-ranking officials from the Seoul metropolitan government after consultation between the mayors of Seoul and Gangnam-gu. The rest of Gangnam's officials are hired by the Seoul metropolitan government at the request of Gangnam-gu, and assigned to the Gangnam-gu office and legal status. As of 2004, there were 1,387 officials in Gangnam-gu. The vice mayor and the public officials' status in Gangnam-gu are guaranteed by the Local Public Service Law.

Also, of the 17 sources of tax revenues within Gangnam-gu,³ Gangnam uses four, while revenues from the other 13 taxes go to the Seoul metropolitan government, which then redistributes some of its tax revenues back to its 25 offices, including Gangnam. The elected mayor presides over the bureaucracy, and an elected district council functions as the legislative branch. The election of local mayors only began in 1995, and this case study involves the e-participation efforts of the first elected mayor of Gangnam-gu. As one of the wealthiest districts in Seoul,⁴ Gangnam is characterized by a highly advanced information technology infrastructure and citizens who are relatively well versed in using PCs and the Internet. According to a survey conducted in 2007 with a representative sample of 2,000 Gangnam-gu households, 88.7 percent of households owned a PC at home and 97.1 percent had access to the Internet.⁵

E-Government in Gangnam-gu

Gangnam-gu was recognized as one of the top seven intelligent communities in 2006, 2007, and 2008 by the Intelligent Community

Forum, and, as of 2003, Gangnam had incorporated more than 110 fully functioning innovative e-government services. Approximately US\$95 million was transacted online through the district's website, and more than 1,200 government officials from 46 nations had visited Gangnam-gu to benchmark its e-government practice. Of the 600,000 government documents produced by Gangnam-gu, 32 percent were transacted online, and more than 100 billion won (approximately US\$107 million) in taxes was collected over the Internet.⁶

Although it is not uncommon to find some innovative service-type e-government, as observed in some leading e-government sites around the world, what makes the Gangnam case unique is the use of the Internet as a channel for citizen participation and communication with the government. The Internet Broadcasting of Senior Staff Meetings application allowed citizens to directly view the discussions taking place during senior staff meetings, which included the mayor, vice mayor, heads of the seven bureaus, and other senior officials. The Online Publication of Official Documents application enabled citizens to directly access, view, and comment on virtually all public documents produced inside the Gangnam bureaucracy.

The Cyber Local Autonomous Government Management System enabled citizens to make meaningful policy suggestions to be considered on Gangnam's website, and the Online Citizen Survey enabled citizens to provide policy inputs and express their preferences in government decision-making processes through an online survey application that collects citizens' approval or disapproval on various policy initiatives and programs.

These applications had the effect of stabilizing the mayor's political control over the Gangnam bureaucracy and its administrators, who were under heavy influence from the Seoul metropolitan government through the Local

Public Service Law, which guarantees their status as public servants. Furthermore, Gangnam's e-participation applications helped the mayor directly access and gain political support from citizens by allowing them to provide input into the policy decision-making process and to gain political leverage with regard to Gangnam's legislature.

However, it is important to note that the mayor of Gangnam-gu—Moon-Yong Kwon—was influenced by a unique set of political circumstances that motivated him to seek e-participation applications as instruments of bureaucratic reform.

Political Motivations behind E-Participation in Gangnam-gu

There are three important variables surrounding Mayor Kwon's initial selection as the first elected mayor of Gangnam-gu. First, there was a broad political reform called the Local Government Autonomy Act of 1995, which enabled the election of mayors at the local level for the first time. Prior to passage of the act, the legislative council members were chosen through elections, but mayors were appointed by the Seoul metropolitan government. The act significantly changed the political landscape in the Korean local government setting, as it created a system of democratic accountability in

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which the newly elected mayors became directly accountable to citizens through elections, rather than to the central government. The 1995 reform created the need for the newly elected mayors to be reelected and, as a consequence, created a strong political incentive to reform the government bureaucracy to become more transparent, accountable, and responsive to the needs of citizens, who now had the power to elect the local mayors. We speculate that this type of political reform was necessary, though not sufficient, for the enactment and use of e-participation applications for political control.

Second, Mayor Kwon's political party—the Grand National Party (GNP)—suffered heavy political losses when he was reelected to the office in his second term. The election outcome, which was a landslide victory for the Democratic Party,⁷ was primarily a response to the Asian financial crisis of 1997–98, the blame for which was placed on the GNP. Consequently, during his second term as mayor, Kwon came to be surrounded by politicians from the Democratic Party as they filled seats in other *gu* government positions and in the Seoul metropolitan government. Upon his reelection as mayor in 1998, he was one of three mayors (out of 25) who were affiliated with GNP, while 19 of the newly elected local mayors, President Kim Dae-Jung, and the mayor of the Seoul metropolitan government were all affiliated with the Democratic Party.⁸ Considering the strong influence of political parties on the Korean political scene, this posed a significant political challenge for the mayor. It also suggests that the mayor had succeeded during his first term in creating sufficient local support for his policies to be reelected.

Third, when Mayor Kwon was initially elected to office, Gangnam, like many local governments in Korea at that time, faced various problems of rigid government bureaucracy. Bureaucrats operated largely based on bureaucratic rules and regulation and tended to be unresponsive to the demands of citizens. There was no direct system of accountability between local citizens and the bureaucracy, as the entire local bureaucracy, including the mayor (prior to the 1995 reform), was appointed by the Seoul metropolitan government. There was little incentive to respond to the demands of citizens, and many decisions were made behind closed doors. Furthermore, as the status of the officials was guaranteed by law, and as they were appointed by the Seoul metropolitan government, it was challenging for newly elected mayors to mobilize officials, who, in turn, resorted to bureaucratic rules and regulations for their actions and decisions. The outcome was a bureaucratic-authoritarian local government vastly lacking in accountability, transparency, and responsiveness.

The mayor responded to these challenges by making the local government decision-making process accessible to the public and by incorporating the preferences of citizens into the district's decision making through e-participation applications. These applications possessed some elements of direct democracy, as they allowed citizens to directly influence and participate in government decision making, opened senior staff meetings and official documents to citizens, and established a direct channel with citizens so that they could provide meaningful policy suggestions. Eventually, Mayor Kwon secured control over the bureaucracy, gained leverage against Gangnam's council, and ultimately reinforced the political support of the citizens. In the following section, each of the four e-participation applications is discussed, including their impact on the bureaucracy as perceived by Gangnam employees.

Internet Broadcasting of Senior Staff Meetings

As the name implies, the Internet Broadcasting of Senior Staff Meetings application was designed to broadcast weekly meetings between the mayor and his senior staff on the Gangnam website. Similar to C-SPAN in the United States, citizens can visit the broadcasting site on Gangnam's website and click on the session they wish to view. Internet broadcasting provided a new form of transparency in which citizens could view the decision-making process taking place among senior officials at Gangnam-gu. Prior to the development of this broadcasting application, citizens did not have access to the content of senior staff meetings. If previous senior staff meetings took place behind closed doors, this application propped the door open to the public, allowing them to watch discussions and observe the decision-making process among senior-level Gangnam officials. Because the decisions made at these meetings are broadcasted immediately over the Internet to Gangnam's political constituents, they become instantly binding on the mayor and other senior Gangnam officials, who then have to follow up on their promises. When asked to elaborate on the purpose of the broadcasting application, one official noted,

[The purpose of this application is] to deliver [public messages] quickly, and when we make public the policy decisions and public issues to citizens, it becomes a kind of promise and there's absolutely no way anyone can lie. For example, we will start certain projects by certain time, and how we will go about implementing these projects. We make all these public.

The Internet broadcasting application also provided a channel of information dissemination regarding Gangnam policies to lower-level Gangnam employees. This helped all employees understand the agendas that were being discussed at the senior level, as well as the decisions made there. "This is a form of information sharing," said an official,

Gu employees watch the live broadcasting . . . and [after watching it] they go "ah, these are the projects that we are working on!" and be able to understand them. This information sharing helps to see all the issues that are being discussed in these meetings and they [Gangnam employees] become better at explaining these things to citizens as well.

This application was directly attributed to the mayor. One government official involved in the development of the application noted that "implementation success was based on the will of the mayor and a good [contract-out] private vendor." The initial idea of broadcasting senior staff meetings over the Internet originated from the mayor himself, who continuously supported and moved the project forward. Gangnam-gu conducted a citizen survey prior to the development of the broadcasting application, asking whether citizens favored the idea of online broadcasting of senior staff meetings. The majority of citizens surveyed supported this application. One survey conducted in 2003 revealed that 72 percent of citizens surveyed supported the idea of Internet broadcasting.

However, the elected Gangnam-gu legislative council did not support the idea and opposed the development of the broadcasting application, claiming that the application was "wasteful." After a series of debates and discussions between the council and Gangnam

officials, the project eventually was approved. However, funding for this application continued to be a point of contention between the mayor and the legislature during the annual budget cycle. Part of the opposition by the legislative council came from the potential of this application for more direct communication of public issues between citizens and the executive branch of the government without involving the legislative council.

While citizens supported this application, Gangnam employees had reservations about the application. Interviews revealed that the main sources of discontent came from the tendency of the application to increase the workload of Gangnam employees and their concerns over making the inner workings of the government open to the public. This reflected the older view of many civil servants, who historically were not directly accountable to the local citizens of a district. An official elaborated:

When the idea about Web broadcasting was suggested, employees didn't really welcome the idea . . . because that would mean more work . . . Staffs don't like the increased workload and they don't like the idea, but the mayor orders them to do . . . They don't like making public [*gu* decision-making processes].

The application began broadcasting in December 2002. Initially, it was developed and managed by Gangnam-gu, but in recent years, it was contracted out on a yearly basis to a private firm to take charge of the technical process of the web broadcasting. An employee from the contract firm was located at Gangnam on a permanent basis to handle all technical issues. Contracts with the private firm are renewable each year, and weekly broadcasting costs Gangnam approximately 2,000,000 to 3,000,000 won (approximately US\$2,140), according to an official in charge of the application.

Online Publication of Official Documents

The Online Publication of Official Documents application began service in August 2003. This application consisted of posting official documents on the Gangnam website. Each published document showed the name of the Gangnam official who had drafted the original document, its content, and officials who had approved it as it moved through Gangnam's organizational hierarchy. This was a relatively simple technology, as the application only required uploading the necessary official documents to the website. An important feature of this application is that it allowed citizens to view the content of official documents and the officials who were responsible for them. In addition, the application allowed citizens to leave comments on the website regarding the documents they were viewing. The mayor provided constant motivation and pushed for the swift development and implementation of this application. "I received calls [at home] from the mayor every morning at seven," noted one official about the mayor's interest in the application during the development period. These efforts resulted in a short development cycle of less than two months. By the end of 2003, the system included more than 1,900 documents published online.

In principle, all government documents were expected to be posted online. However, security-related issues or personal and business information were censored, as it is against the law to reveal such information in public. When government documents were drafted

and approved in each division, they were sorted as "publishable" or "unpublishable," depending on their content, and each division published its own documents online. The official who initially drafted a document categorized the document as publishable or unpublishable, and senior officials reviewed them to make the final decision as to their status. Because of potential misinterpretation and political sensitivity, official documents that went beyond vice mayor-level officials were reviewed by staff in the policy and planning division, where it was decided whether or not to publish them online.

The mayor's motivation for this application was to make the work of government more transparent to citizens and to motivate government administrators to work with caution, as everything they do could become available online. One official noted, "The purpose of this application is transparency. Transparency is our objective and we make all official documents public even before citizens ask for them." When asked about how this application changed the way things within the Gangnam bureaucracy, this official continued,

I think since all the work you do is made public, you could expect that I would be more careful in what I do. I think this is the invisible benefit of the application . . . everything gets published on the Internet so you have to make progress as scheduled with fewer mistakes.

Although there were not many citizens who actually reviewed online government documents or generated feedback, the mere fact that citizens could view all official documents induced public officials to be more careful in their actions. Similar to the online broadcasting system, this application increased the workload of government officials, as it added more things to do—uploading official documents.

The high degree of transparency and openness in Gangnam-gu government through this e-participation application has provided the bureaucracy and its officials a form of "protection through transparency," in which any wrongful accusation against the bureaucracy or its officials becomes more difficult. One official noted that greater openness from these applications provides a protection against negative media attacks on the Gangnam bureaucracy.

We have to protect our organization . . . [media] continues to distort Gangnam-gu . . . Now everything is made public and even phone calls from the outside are put on speaker-phones, not received with regular phone receivers . . . Things have changed dramatically. These days [public] information gets published on a real-time basis, the relationship between public officials and citizens, the government and private sector businesses, transparency, all moving toward fully developed advanced society.

The mayor took openness and transparency through this system not only into government documents, but also made employee performance scores available—but in this case, only to other Gangnam employees.

I've never seen employee performance scores being published ever. Because of this no one has any questions [about personnel decisions]. No one can dispute the mayor and protest "why did you do this?" [promote or reward certain employees].

Because everything regarding promotion and rewards is made public to all employees, and as officials receive promotions and other rewards according to their performance scores, the mayor's personnel decisions typically went unchallenged.

Online Citizen Survey

If the previous two applications focused on enhancing government transparency by making government decisions and the bureaucratic process (official documents) available to the public, the Online Citizen Survey enabled citizens to provide policy input and to express their "will" in the government decision-making process. This is a form of two-way communication in which the government initiated the communication (online survey) and citizens responded by revealing their policy preferences.

Typically, each division in Gangnam-gu or the mayor drafted the survey questionnaires to be used. The survey questionnaire generally solicited citizens' perceptions and attitudes toward specific policy questions—usually in the form of "approve" or "disapprove," with room for comments. Once each division submitted their questionnaires, the Computerization and Information Division (CID) conducted the survey, collected the responses, and returned the survey results to the corresponding division or to the mayor. Although the surveys were primarily administered by the CID, technical management of the online survey was contracted out to a private technology firm. One of the firm's employees worked in residence at Gangnam-gu at all times to handle any technical issues. As of 2003, 140,000 e-mail members subscribed to Gangnam's e-participation site.

Surveys were sent to all citizens who were registered with the e-mail Listserv simultaneously or separated into smaller groups. The survey groups were created according to gender, place of residency (within Gangnam district), and age in order to create representative samples of Gangnam residents. Smaller survey groups allowed Gangnam to handle 100 surveys simultaneously. Typically, each registered *gu* resident received two to three surveys per year. Usually, surveys were put on the web and the web links were e-mailed to citizens. Online surveys were conducted on budget items (new programs and initiatives that require appropriation from the Gangnam council) in order to generate citizens' support.

Because the survey results became a part of the political decision-making process, surveys were often questioned by the Gangnam council, as well as other interest and citizen groups. However, on highly important issues on which the objectivity of the survey was likely to be criticized, Gangnam officials delegated the administration of the survey to professional research companies through contracts or administered full population surveys using more traditional mail-based approaches. Furthermore, in order to enhance survey reliability, Gangnam kept a list of 1,000 Gangnam residents to whom offline, conventional paper surveys could be conducted. However, because of high costs and the time involved in traditional paper surveys, Gangnam only used this strategy for important and controversial issues.

The survey application began its service in September 2002, and since its inception, the number of surveys has dramatically increased over the years (table 1).

Table 1 Number of Online Citizen Surveys, 2001–3 (Gangnam internal document)

Year	Information	Survey	Total
2001	3	20	23
2002	1	236	237
2003	27	534	561

The growth was largely attributable to the governing philosophy of the mayor, who believed in broad citizen participation in government policy making. Consequently, it has become standard practice to survey citizens on most policy initiatives and projects. According to one official we interviewed, the average cost of a survey was around 450,000 won (approximately US\$480). Officials used a 70 percent approval rating as the basis for moving any project forward. However, some projects that were regulatory in nature, such as supervising parking violations, typically required a much lower level of support from citizens to be pushed forward as policy.

When the online survey application was adopted, some touted it as a form of direct democracy, despite certain important limitations. These polls were not binding votes—rather, they were opinion polls, and citizens were only allowed to respond to a set of agendas that various divisions at Gangnam had drafted for them. Gangnam further advanced the application by incorporating a feedback system in which citizens could track the issues on which they had been surveyed. Citizens could see whether the issues were approved or rejected. If projects were approved, citizens could also see the implementation progress of the project.

The Gangnam-gu council strongly opposed this application. In one early dispute, in order to increase response rates to online surveys, Gangnam tried a variety of incentives to citizens, including small monetary payments of about \$0.50 for those who participated in the surveys. The legislature stopped the practice, and, not surprisingly, the number of respondents dropped. Currently, Gangnam uses a "mileage" system, in which respondents receive certain mileage points for participating in surveys, which can be traded in for free text messaging using their cell phones. Citizens can also use their "mileage" to enter a number of sweepstakes that Gangnam government administers for prizes. Gangnam includes the outcomes of its surveys, such as the level of citizen approval on each budget item, when they go to the legislature for approval. The legislature has questioned the objectivity and accuracy of Gangnam's online survey application since its implementation. One official commented on why the legislature may be so opposed to this particular application:

They [Gangnam council members] question why Gangnam bureaucracy engage in a direct communication with the Gu citizens as they are supposed to be the spokesperson for the citizens.

We hold various meetings with the legislature . . . Then we run into this issue frequently, about this [online citizen survey] and others . . . We are not trying to take over the function of the legislature.

[They seem to think that] their function . . . is carried out [by Gangnam bureaucracy]. They should be the ones who

represent the will of citizens, but Gangnam bureaucracy is engaging in direct communication with citizens and they seem to think their function is being infringed.

Gangnam-gu officials reminded the council representatives that they still have the authority to approve or disapprove the suggested budget items regardless of the outcomes of the online surveys and that this application should help them (council representatives) better understand the will of citizens. Online surveys have helped Gangnam effectively assess and incorporate citizens' preferences into government decision making on a real-time basis, and this, in turn, has provided the Gangnam bureaucracy and mayor with political leverage against the Gu legislature in annual budget debates.

Another important consequence of the online survey was increasing citizen satisfaction. As citizen perceptions and attitudes were incorporated into government policy preferences and decision making, citizen satisfaction improved. One official noted,

First, the will of residents are there, and as we do government work according to their will, the level of citizen satisfaction rose, and they began to feel that Gangnam is working for them . . . Therefore in the end, the level of citizen satisfaction regarding Gangnam's administration rises.

Like other applications, officials felt that this increased their workload because they surveyed citizen preference on most Gu issues, ranging from the color of the public restrooms in Gangnam's parks to broader social policies and programs, which previously were simply made as executive decisions. In addition, like the Online Publication of Official Documents application, incorporating the preferences of citizens into decision making had the effect of attenuating political responsibilities on Gangnam's policies. An official elaborated,

How is Gangnam from ten year ago? It has changed dramatically. First, it is painful for us [officials, from increased workload] . . . but on the other hand, if I make all the decisions and something goes wrong later on then I have to take the responsibility, but since we make decisions from the collected preferences of citizens, this diminishes the responsibility that I have to bear.

Traditionally, Korean public organizations, up until now, worked according to lawfulness, rather than practicality of public policy. Secondly toward citizens, it was one-way communication. Citizens were not the subjects of government but rather the objects of public administration. Such was the commonly held perception, but here, this goes two ways. Citizens are the subjects, therefore, citizens are expected to participate. In short, the culture is that we should work in a mixture of representative democracy and direct democracy.

Cyber Local Autonomous Government Management System

The Cyber Local Autonomous Government Management System, like the other e-participation applications, originated directly from the mayor. If the online survey enabled citizens to provide their preferences and respond to government-initiated policy and programs, this application allowed citizens to provide

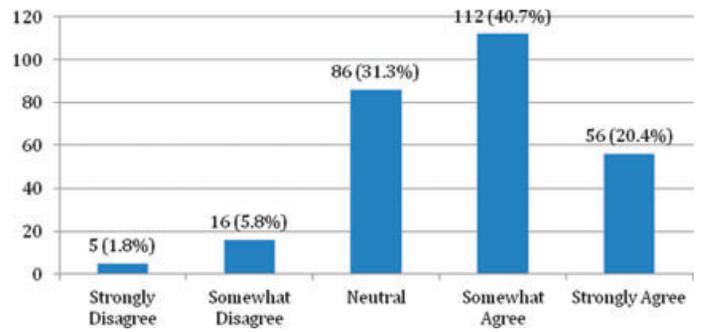
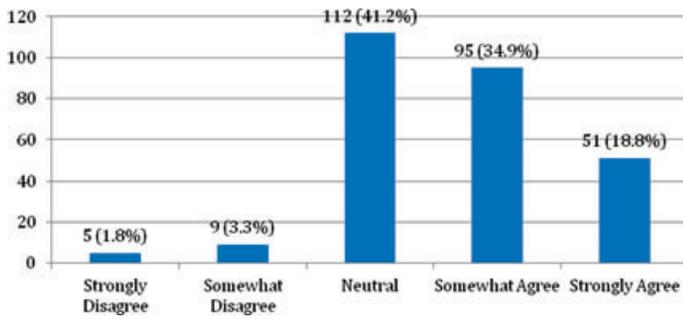
direct input and policy suggestions to the government. Essentially, this application was a real-time web-posting service, with citizens initiating the process. The expectation was that citizens would post suggestions for new programs and policies (e.g., setting up a bicycle rack near a subway station) that they saw as beneficial. Previously, citizens had made suggestions through an "offline" service called Citizens' Innovative Idea. The mayor suggested providing this service online. The application was monitored on a real-time basis by a Gangnam official, and technical issues were contracted out to a private firm.

However, an official noted that most of the postings and suggestions that came through the system were mostly based on misconceptions and misinformation that citizens held. "Most suggestions are not suggestions so we spend a lot of time explaining" noted this official. Complaints regarding some Gangnam services dominated the system, and suggestions that citizens made were not service suggestions per se, but rather small requests. In addition, a lot of suggestions that citizens made already existed, but citizens were simply unaware of them. Again, this application generated more work for the staff, and by December 2003, more than 600 suggestions had been received, and only five of them were selected. Officials tried to provide incentives to generate more innovative suggestions from citizens in order to revitalize this application. The significance of this application was that it provided citizens a direct channel in to the local government agenda-setting process.

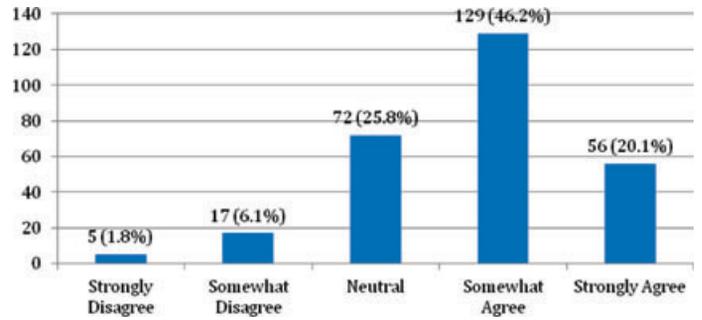
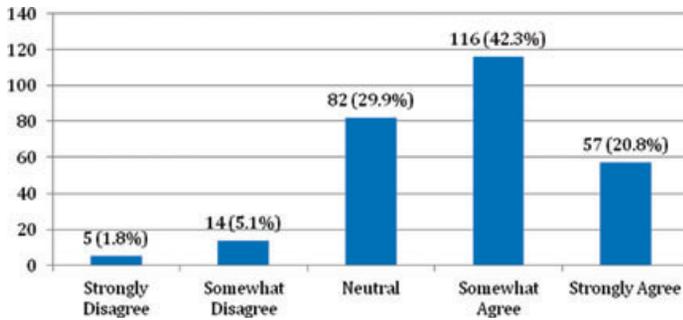
Although not directly investigated in our case study, there was another e-participation application (that had been mentioned several times during the interview) at Gangnam called "We Ask Our Mayor." It was essentially a web bulletin board similar to the Cyber Autonomous Government application and served a similar purpose, allowing citizens to post their suggestions, comments, and complaints. As the name suggested, what distinguished this application from other e-participation applications was that the mayor supposedly viewed the content of the web board directly, and the content of the citizen input was not limited to policy suggestions. All three main actors in Gangnam—the mayor, public officials, and citizens—could view the web board. The mayor viewed the content of the web board, but the application was managed by the civil affairs inspection officer, who allocated and sent each suggestion, comment, and request to the corresponding division to handle. Although these were two primary channels through which citizens could initiate communication with Gangnam-gu, citizens could also use web bulletin boards for the individual divisions that were readily accessible on Gangnam's website. In addition, Gangnam's web directory published the e-mail addresses of individual Gangnam public officials so that citizens could contact them directly.

Discussion

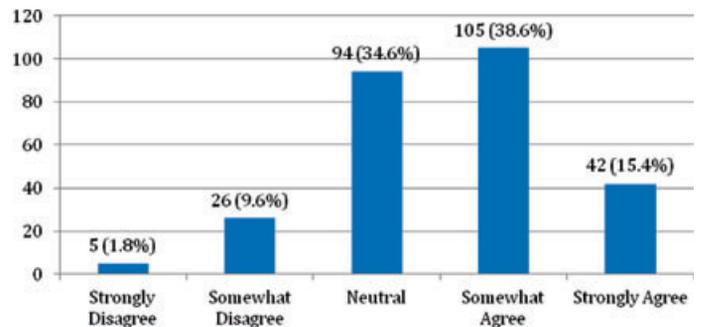
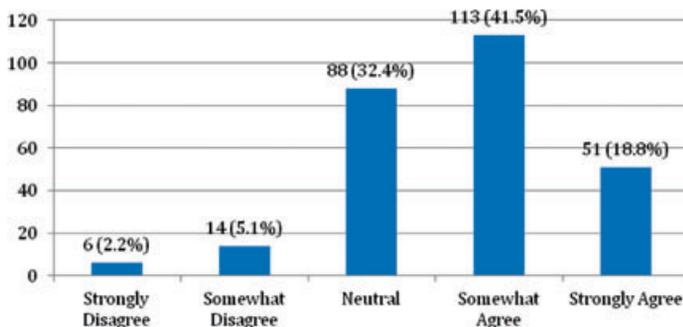
When asked how Gangnam's e-government applications changed the way government operates, Gangnam employees answered that e-government transformed the bureaucracy from an authoritarian culture toward a more citizen-centric culture (figure 1)⁹ and increased transparency (figure 2),¹⁰ responsiveness (figure 3),¹¹ and citizen trust (figure 4)¹² in the government. In addition, Gangnam officials perceived that e-government applications had dramatically reduced corruption (figure 5)¹³ and abuse of power by public officials (figure 6).¹⁴



Figures 1–2 Impact of E-Government on Citizen-Centric Culture and Transparency



Figures 3–4 The Impact of E-Government on Responsiveness and Citizen Trust



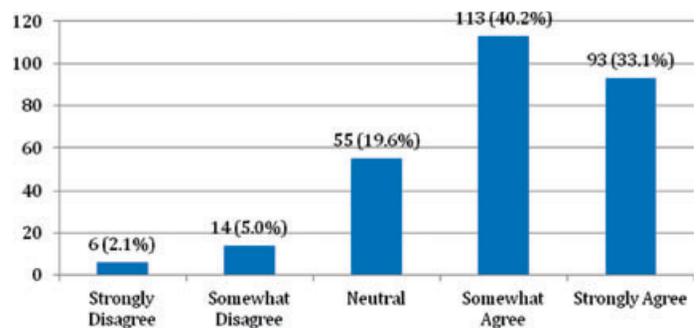
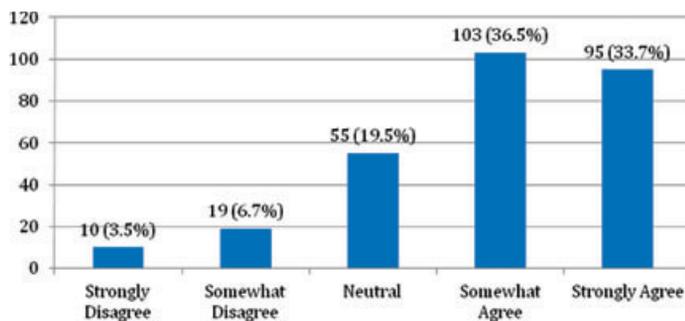
Figures 5–6 Impact of E-Government on Reducing Corruption and Abuse of Power by Public Officials

When asked to name the critical success factors behind Gangnam’s e-government practice, most officials we interviewed named the strong will and support of the mayor, Gangnam’s large budgetary capacity, and Gangnam’s demographic environment, characterized by high levels of education, income, and Internet penetration. The mayor clearly initiated and strongly encouraged all e-participation projects. As shown in figure 7, a majority of employees agreed that the mayor’s leadership was the catalyst for Gangnam’s e-government development.¹⁵ Similarly, the majority of Gangnam employees surveyed felt the mayor clearly provided the vision for Gangnam’s e-government development (figure 8).¹⁶

The mayor understood the political value of e-participation applications as instruments of bureaucratic reform. The mayor consistently facilitated and encouraged participation from Gangnam officials in the development of various e-participation applications. One strategy that the mayor used in order to motivate and mobilize Gangnam officials to contribute to the e-participation effort was a promotion

and reward system called the “Incentive System.” This system distributed various monetary and nonmonetary rewards based on the level of contributions that individual officials made in generating “creative and innovative suggestions” that would bring greater levels of efficiency to government operation and bring conveniences to the citizens.¹⁷ Use of the Incentive System was then extended beyond the distribution of monetary and nonmonetary rewards, to be used in promotion considerations as well. In addition, the mayor further encouraged risk taking by Gangnam officials by publicly characterizing “failures as honest efforts,” and he did not formally penalize individuals who supported unsuccessful innovative projects. The mayor’s focus on innovation led to the development of Gangnam’s innovative e-participation applications. An official elaborated,

Public officials don’t like reforms. Things that don’t have any precedents are bound to cause problem. Due to the possibility of reprimand, we don’t do it . . . So, Mayor Kwon began a policy of not punishing an honest effort by public officials



Figures 7–8 Role of the Mayor as a Catalyst and Vision for E-Government Projects

and giving the incentive points for providing programs that provides conveniences to citizens.

Through e-participation applications, the mayor improved the level of citizen inputs and allowed citizens to watch over government processes and decision making. Accountability, transparency, and greater citizen participation in the government decision making helped him secure control over the bureaucracy, gain leverage against the Gangnam legislature, and ultimately helped him gain political support from citizens to be reelected as the mayor of Gangnam-gu for three consecutive terms, the maximum permitted by law. With the strategic use of e-participation, citizens who previously were the subjects of government policies and services became important partners in government decision making. Not only did citizens have more influence in the decision-making process, but they also become customers, as well as ombudsmen of government service quality and the performance of government officials.

Giving up a portion of executive decision-making authority by opening the government process to the public and increasing citizen influence in government decision making became a source of power and protection for the mayor. Surveying the preferences of citizens in a timely manner helped the mayor to effectively identify what citizens wanted. This had the effect of improving the level of citizen satisfaction with Gangnam's operation. As a citizen satisfaction survey conducted in 2001 (Gangnam-Gu 2001) indicated, 95 percent of citizens surveyed felt satisfied at "above average" (see table 2) while only 4.7% felt dissatisfied.¹⁸

The redefined relationship between citizens and the government brought significant change to the Gangnam bureaucracy as well. One official summarized how Gangnam changed under the leadership of the new mayor:

I have worked as a public servant for over 20 years . . . Gangnam has broken the stereotype of public officials being cold. Let me explain . . . This story should help you understand the kind of change that took place here . . . In 1995, a side wall of Dogok apartment building collapsed. Then [Korean] Thanksgiving came and a lot of people couldn't

even stay at the lecture hall. You know, we felt sorry for these folks and Gangnam officials stood by the collapsed building because we were worried about potential theft at the evacuated residence . . . The mayor told the affected residents that [monetary] support and compensation would be provided for them since he felt sorry for them. But at that time, there was no law that specifies providing compensation for residents in such cases. Since there was no legal support, no one drafted or initiated the process of providing compensation. The clerks, and division heads, no one was starting the process thinking that when this becomes the subject of government audit, they will be in trouble . . . But now, if the mayor comes up with an idea and suggests trying it, no one says "we don't have any law written about it." [Instead] they investigate the idea and if they find any flaws in the law, they would draft a revision of the law and bring it to the central government or other officials in charge of that area and argue that the law should be changed. Such is the reformed mindset of Gangnam public officials.

Conclusions

This study contributes to the literature on e-government by helping us identify aspects of new technology that are likely to affect citizen participation and democratic institutions. More importantly, though, this study helps identify some of the necessary sociopolitical antecedents to successfully implementing new e-participation applications. In the context of emerging democratic institutions in the Republic of Korea between 1996 and 2007, the subset of e-participation applications dramatically changed the degree of citizen participation and control of local government. While the legal changes creating an elected mayor were a necessary step, that was by no means sufficient for generating the magnitude of change observed in Gangnam-gu over this period of time. New e-participation applications accelerated the process and affected the relationship between citizens, elected mayor, elected council, and the professional bureaucracy.

The strategy of the new mayor recognized that increased transparency and increased citizen input, both through structured surveys and open-ended comments, could leverage a number of positive outcomes. First, it helped improve his personal reputation and support from local citizens—he was one of only a handful of candidates to survive the political shift in parties that occurred at the national and local level during his second election. It provided him political leverage in dealings with the legislative branch. Finally, it enhanced his capacity to control the professional bureaucracy formally

Table 2 Citizen Satisfaction, 1997–2001

Year	97	99 (early)	99 (late)	2000	2001
Satisfaction %	61.8	77.6	79	92	95.3

Note: These percentages represent "above average" satisfaction levels.

controlled by a higher level of government—the Seoul metropolitan government.

The professional bureaucracy was also transformed by these changes. While reluctant at the beginning, several advantages for the bureaucracy became evident over time. These advantages included access to useful information on citizen demands, tools for managing relationships with citizens and the legislature, and increased information about each other. These benefits, plus the obvious incentives these systems provided, helped reduce resistance to change and made the bureaucracy a bit more willing to respond to the mayor's needs.

The new capacities of the e-participation applications also generated some important negative consequences. First, new information technology applications in government rarely reduce workload. Not surprisingly, all of the new applications increased workload for the bureaucracy in Gangnam. The power and authority of the legislative unit was weakened at the expense of the executive branch. While it is fair to say that the advent of an elected mayor would immediately create changes in political power, it is likely that the successful application of these e-participation applications in Gangnam resulted in a greater shift than would have been the case otherwise.

This paper also makes a number of contributions argued by Perry and Kraemer (1986). First, we identified key variables that affect the likelihood and nature by which e-government activity enhances citizen participation. These include a political structure of citizen accountability for elected officials and, in turn, bureaucratic officials. The Local Government Autonomy Act of 1995 created a system of citizen accountability by creating elected mayor, and this created a necessary condition and incentives for Gangnam's e-participation effort. Leadership skills at the highest level that can motivate and encourage changes in administrative and bureaucratic behavior represent another important variable. All interviews and surveys attribute the changes at Gangnam-gu to their mayor, without whom the kinds of changes at Gangnam would not have been possible. If the Autonomy Act of 1995 provided a necessary condition for e-participation, leadership played an important role moving it forward. Second, this paper illustrates the virtue of multiple methods research, in which both quantitative and qualitative data are captured. Interviews revealed some important political dynamics surrounding Gangnam's e-participation development and outcomes, and surveys helped confirm them.

Much of the success of these applications must be attributed to the prior legal and political change in the local government to create elected mayors. Nevertheless, looking around the world today, more and more countries are attempting to introduce new democratic institutions, such as Afghanistan, Iraq, China, Russia, and many others. Assuming that legitimate legal and constitutional prerequisites exist in these contexts, the lessons from Gangnam provide useful clues on how to accelerate the process, particularly at the local

level. This is not an argument for technologically driven change, but rather one in which technology can support legal political reforms for greater democratization and citizen involvement in government. It is likely that technology may have a greater marginal impact on promoting citizen participation in young democratic states than in older, more established democracies, as the legal and political framework in established states is less likely to change. Certainly in established democracies, issues of preexisting mechanisms of citizen participation and problems of political risk associated with changing these institutions have mitigated e-government efforts for more participation. Future studies should examine the relationship between the "stability" of preexisting mechanisms of citizen participation, the "political stability" of the elected officials, and the use of e-participation as a medium of citizen participation.

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Notes

1. These applications include land-use permit certificates, building management registers, individual public prices of land, duplicates of cadastral maps, telemarketer business registration, land registry, and parking ticket appeal applications.
2. See <http://www.gangnam.go.kr>.
3. These include acquisition, registration, license, race and pari-mutuel, regional development, common facilities, local education, resident, property, automobile, agriculture income, butchery, tobacco consumption, aggregate land, motor fuel, city planning, and workshop taxes.
4. Gangnam has the largest annual budget among all *gu* governments in Seoul. Gangnam's annual budget for fiscal year 2003 was 297,072,000,000 won, which is equivalent to US\$319,377,000, using a \$1 = 930 won exchange rate (2007).
5. See <http://gss.gangnam.go.kr/sub2/sub2.jsp#>.
6. Using \$1 = 930 won exchange rate (2007).
7. Initially, the Democratic Party started under the name National Congress for New Politics (*Sae-Gook-Min-Chung-Chi-Hui-Eui*) in 1995. In 2000, the party changed its name to the Millennium Democratic Party. The party underwent another name change in 2005 when it began to use its present name, the Democratic Party. In this article, we use the name Democratic Party to avoid any confusion.
8. Of the 25 *gu* mayors, three were affiliated with the Grand National Party, 19 with the Democratic Party, and 1 with the United Liberal Democrats Party. See the National Election Commission at <http://www.nec.go.kr/>.
9. The survey asked (in Korean), "Have e-government applications changed Gangnam's authoritarian culture into a citizen-centric culture?"
10. The survey asked, "Has e-government in my division improved government transparency?"
11. The survey asked, "Has e-government improved the responsiveness toward citizens?"
12. The survey asked, "Has e-government improved citizens trust toward Gangnam-gu?"

[This paper identifies] key variables that affect the likelihood and nature by which e-government activity enhances citizen participation. These include a political structure of citizen accountability for elected officials and, in turn, bureaucratic officials.

13. The survey asked, "Has e-government reduced corruption in general?"
14. The survey asked, "Has e-government reduced the abuse of power and authority by public officials?"
15. The survey asked, "Has the mayor's leadership been an important catalyst for [Gangnam's] e-government development?"
16. The survey asked, "Has the mayor provided a clear vision of e-government?"
17. Nonmonetary rewards included financially supported opportunities to study abroad, and having the names of Gangnam officials and their "levels of innovative contribution" displayed on Gangnam's Intranet, where all Gangnam officials are able to access and view.
18. 56.9 percent indicated positive perceptions about Gangnam's performance ("excellent" and "somewhat nice"), and 38.4 percent indicated "average," which adds up to 95.3 percent, while 4.7% indicated negative perceptions about Gangnam's performance.

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