

# Public Management Information Systems and the Issue of Privacy: A Case Study on the Electronic ID Card Project in South Korea

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## Abstract

The purpose of this paper is to consider privacy concerns regarding South Korea's electronic ID card project. In 1996 the South Korean government proposed the world's first computerized personal information system project called the "Electronic Identification Card Project", but the government withdrew from the electronic ID card project in 1999 in the wake of heavy protest.

Computerization of information has brought so much convenience to our everyday routine that it is virtually impossible to think of life without it. Within the background of the importance of computerization, I will highlight the main features of this electronic ID card project and its impact on the privacy issue.

## Introduction

As we all know, the present age is called the cyber-age or information age. There is not even a single day that goes by where we do not touch something related to electronics, needless to mention TVs, computers, cell phones and other similar electronic devices. Like I just mentioned above, the use of computers has made our lives easier. Keeping this in mind, I would like to mention the Korean government project of using an electronic ID card that will contain all the personal data needed to produce a smooth administration.

Immense progress has been made in the past two decades in the public management information systems(PMIS) of South Korea. Now we are living in an age where it has become a trend to preserve all kinds of information through the use of computers. Striking developments in

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mass media and communication technologies have jeopardized the sense of privacy that, till recent years, never surfaced so prominently as an important factor in lives of Korean people.

In 1996 the South Korean government proposed the world's first computerized personal information system project called the "Electronic Identification Card Project" that generated a series of heated discussions on the issue of privacy. But fearing that the era of electronic surveillance, as described in George Orwell's novel "1984", may be brought to real life in South Korea, many people or groups have opposed the project vehemently. Privacy advocates in Korea have fought to stop this project because it threatens the privacy of ordinary people. They said, "Big Brother is coming to Korea! The era of electronic surveillance as described in George Orwell's novel "1984" may be brought to real life in South Korea."(Korean NGO Task Force: see <http://www.frontist@member.sing-kr.org>).

In the wake of heavy protest, the government had to terminate the project dealing with digitalized cards(electronic cards) but introduced another project using non-digitalized cards(plastic cards) instead.

The purpose of this paper is to speculate the significance of public management information systems and to consider privacy concerns regarding South Korea's electronic ID card project.

## Theoretical Background

One reflection of the enormous increase in the interest in management information systems (MIS) is the rapid growth of research, theory, and prescription. But the existing theoretical framework for research in MIS is criticized for its lack of attention to the external environment of organizations (Bozeman & Bretschneider: 475).

The issue of privacy is one which has called attention to the external environment of organizations(governments). The Oxford Dictionary defines 'surveillance' as the "watch or guard kept over a person esp. over a suspected person, a prisoner, or the like; often spying, supervision; less commonly, supervision for the purpose of direction or control, superintendence".

Indeed, many information society theorists contributed considerable insights toward the privacy issue and its related concerns and they warned of the dangers which information technologies presented toward the issue of privacy(Westin: 1967, Gandy: 1993, Clarke: 1994). Many discussions focus on the problems of the "security of systems" or "information leakage", attacks from hackers, and information abuse and misuse.

## What is the Electronic ID Card Project?

The electronic ID card, as the name suggests, is an IC type card that can store a heap of information. In case of this project, the card is meant to contain as many as 7 different kinds of information, i.e., the information from the currently used universal ID card, driver's license, medical insurance card, national pension card, proof of residence and a scanned fingerprint.

Once the project is completed in 2000, every Korean adult will be assigned a single integrated circuit card. No one will be able to decide whether he/she will have the card or not because, without it, it will not be possible to drive, get medical service, or identify oneself when approached by the police.

The Ministry of Government Administration and Home Affairs(MOGAHA) had announced that the new cards would be distributed starting in December 1998 under the Citizen Registration Law. Full implementation was scheduled to be completed by April 2000. While there are some nations in which drivers' licenses are used in place of ID cards, this project will be the first system in the world which combines multiple functions onto one card. Once distribution is completed, the card will greatly boost efficiency, saving the government US\$1.3 billion and enabling it to eventually reduce its work force by 5,000 employees.

A huge computer network will be built. Most of the private information will be combined and taken care of by the government. The digitalization and integration of private information are the core purposes of this new project.

### Situational Background of the Project

The discussion on the introduction of an electronic ID card first began based on the need to renew the current citizen registration ID card. The current paper-made ID cards were first issued in November, 1968 as a mean to distribute citizen registration numbers to the public. It went through its first renewal in 1975 and then its second renewal in 1983. However, a long period of time has passed since its second renewal in 1983 and many of the ID cards have gone through great wear and tears. Furthermore, its usage is limited in that it can be only used to identify simple personal information. This creates further problems in the increasing demand for more detailed identification such as issuing more copies · abstracts of resident registers.<sup>1)</sup>

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1) The existing ID cards use the traditional plastic coating method where paper with a picture is coated with plastic. For this reason, it is easy to be forged or fabricated in case of loss or theft. There have been cases where ID cards have been used for criminal activities such as juvenile entrance to restricted areas, robbery of properties etc. According to the Police Department, between April 16-30, 1997, there were 249 cases of illegal activities concerning the ID card, which 86 cases led to arrest. Looking at the type of criminal activities, there were 155 arrested for forgery and fabrication(for passport issuance, job, reale state, etc), 36 arrested for sales and unlawful re-issuance of ID cards and 58 used for money

Beside the need to renew the old ID cards, the electronic ID card project is in line with other governmental projects such as the Master Plan for Informatization Promotion which has been pursued over the last 20 years, the first and second Administration Information Web Projects, and the 1996 Basic Plan for Pursuing the Information Age which is a comprehensive development project for realizing an advanced information society.<sup>2)</sup>

Therefore, through this project, the government tried to remove the old concepts associated with those ID cards, whose function was solely to provide proof of identification, and to move on to a new multi-purpose ID card.

In the early planning stage of the electronic ID card project, semi-conductor memory chips were to be placed in the cards so that information regarding citizen registration numbers, copies · abstracts of resident registers, certified personal seals, driver licenses, medical insurance, national pension, etc. could be stored on the card and only be accessed through a password and electronic signature. For such comprehensive ID cards to function, an electronic ID card main server system is necessary and this database system must be established throughout the country. Then all terminals can be connected to the main system which links electronic ID cards to the main system.

Therefore, the electronic ID card project is a national project, which envisions the establishment of an information system that connects each ID card to the national information web. It also seeks to create a consensus among the public for promoting information industries. It additionally strives to become an advanced nation in the world of information in the 21st century.

### Project Objective and its Programmes

Some of the results that the Ministry of Government Administration and Home Affairs (MOGAHA) tried to achieve through the introduction of electronic ID cards are :

1) Establish national security and social stability: Prevent forging and fabricating ID cards in order to fight against social crimes and spy activities.

2) Increase public benefits and decrease the cost of social infrastructure: By replacing the issuance of copies · abstracts of resident registers, certified seals and other administrative activities with the electronic ID cards, time and money can be saved for the general public. Additionally, money can be saved on public infrastructure.

3) Decrease public administrative personnel and its budget: Through complete computerization of the citizen registry, over 5,000 personnel currently employed in the rural areas can be de-

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recovery.

2) The Citizen Registration Information Web Project, which started as a part of the program on the Basic Plan of the Public Administration Information Web signed on May 1985, is a central part of government efforts in establishing an information-oriented government and has been in service since March 1991.

creased(90 billion won budget cut) and transferred to other sectors(such as the local welfare centers).

4) Increase public awareness in information and bring a synergy effect to the information industry: Bring educational effects about the information age and make the public more information-oriented. Make home-administration possible, as well as promote the domestic non-memory semi-conductor industry which is in its early stages.

With such objectives, the electronic ID card project<sup>3)</sup> was submitted to the Cabinet Meeting on the Basic Plan for the Renewal of Citizen Registration on April 1995. Joongang-dong of Kwachlon City was selected as a trial testing area, and on June 1996, while the Informational Promotion Committee was meeting, with the Prime Minister as the Committee Chairman, passed the Basic Plan for the Promotion of Information. Soon after, the Citizen Registration Act and the Certified Seal Act, which contained legislatures regarding the electronic ID cards, were revised and announced on December 17, 1997 and, as shown in Table 1, MOGAHA was on its way for full implementation of the electronic ID card system by April 2000.

<Table 1> Plans for Introduction of Electronic ID Cards<sup>4)</sup>

Period	Programs
Nov. 97-Nov. 98	Establish basic infrastructures, such as ID card issuance centers, electronic card printing centers, etc.
Dec. 98-Sept. 99	Issue ID cards (over 17 years age : 3.49 million)
Jan. 99-Mar. 2000	National-wide operation and check for imperfection
April 2000	Full Implementation of ID cards

## Policy Process

Policy on introducing the electronic ID card was first raised during the Feb. 1994 Administration Reform Committee meeting when a need for a multi-purpose IC card was proposed (Table 2).<sup>5)</sup> However, a detailed plan that was officially selected as a policy agenda was the one

3) Some of the effects that MOGAHA expected to see from the introduction of electronic ID cards are 1) establish national security and social stability, 2) increase public benefits and decrease the cost of social infrastructure, 3) decrease administrative personnel and budget, 4) increase public awareness in information and bring a synergy effect to the information industry. Source : MOGAHA

4) According to the Citizen Registration Act and the Certified Seal Act, starting from Dec. 1998 through September 1999, the currently used paper ID cards are collected from 35 million people who are 17 years of age and given a new electronic ID card. From Oct. 1999 to March 2000, the project will go through a test period and starting from April 2000, all citizen registration ID cards, certification of seals, and copies - abstracts of resident registers will be replaced by the electronic ID card.

5) On Feb. 1988 the National Computerization Agency of Korea proposed the creation of "multi-purpose

that was submitted to the Cabinet Meeting on April 1995 as the Basic Plan on the Renewal of Citizen Registration.<sup>6)</sup> Soon after, this plan was first tried in the Joongang-dong area of Kwachon City in Kyonggi Province, and on July 1995, the Basic Plan for the Promotion of Information was planned in the Information Promotion Committee (Chairman : Prime Minister).

〈Table 2〉 Steps Taken for the Introduction of Electronic ID Cards

Period	Process
Feb. 1994	Multi-purpose IC card proposed during the Administration Reform Committee
Apr. 1995	Basic Plan for Renewal of Citizen Registration reported to the Cabinet Meeting
June 1995	Joongang-dong Kwachon selected for trial test area
June 1996	Information Promotion Committee passes Basic Plan for Promotion of Information
Dec 1997	Citizen Registration Act and Certified Seal Act, which provide the legislative background for electronic ID cards, revised and ratified
May 1999	Citizen Registration Act and Certified Seal Act, which exclude the electronic ID cards, revised and ratified.

However, citizen movement groups started to protest that such electronic ID cards infringe on the privacy of individuals. Because of this effect, the originally planned seven categories of information that were to be inscribed on the electronic ID cards were reduced to 4 categories (citizen registration number, copies · abstracts of resident register, fingerprints, and certified seals (optional) in the revised version of the Citizen Registration Act and the Certified Seal Act that was passed in the National Assembly on Nov 17, 1997. On the following month, it was declared as the 5459th Law, and the institutional element for the implementation of the electronic ID card was set.<sup>7)</sup>

However, anti-protest against the electronic ID cards by citizen movement groups, as well as the foreign currency crisis of late 1997 and change of powers in the government proved to have a negative impact on the implementation of the project. Finally, on May 24, 1999, a revised Citizen Registration Act and Certified Seal Act were passed as the 5987th Law, bringing an end to the electronic ID card project.

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integrated ID cards” to the National Information Web Committee.

- 6) The plan proposed 7 kinds of information to be inscribed on the electronic ID cards(citizen registration number, copies · abstracts of resident registers, certified seals, driver's license, medical insurance, national pension, fingerprints.
- 7) During the 1996-1997 period, a total of 48.5 billion won (24.9 billion won was used for purchasing computer equipment, 7.8 billion won on developing software, and 15.8 billion won for picture taking equipments) were spent.

## Major Issues of the Electronic ID Card Project

So what will happen after the card comes into being? As we all have been a witness to the history, the government has been known, certainly negatively, as the instrument of suppression. This card system will enhance the power of the state machinery and make the common people incredibly vulnerable or weak. Korean government agencies like the KCIA or police will have easy access to anyone anytime. Undoubtedly, one of the victims of this technology would be 'human right movements'. Thus censorship and restriction by the government will increase by leaps and bounds.

More than just the card, it is the database system that will cause the real danger. Since it can copy, store, transfer, and mingle any kind of information, people would be subject to the mutilation of data and in such a case, may be answerable to the fact fabricated by the agency. It may endanger individual privacy on a scale never imagined before.

In Korea, everyone is currently required to carry an ID card called a 'resident's license' constantly. And in case of inspection, one is bound to produce the card or else face criminal charges. Moreover, each individual is issued an ID number and is treated as a number of the government. There is no real difference between this ID number system and the bar code system of merchandise items.

The Korean government already has gathered a great deal of private information in its hands. It operates with low transparency by limiting public access to information on what the government is doing. In addition, more private information is being collected by the police and KCIA.

The current citizen registration system is extremely powerful and suppressing from the viewpoint of human rights. There is no doubt that the new system will pose a great threat to critics of the government and to our society as a whole. After the enactment of the personal data card system, people will be in the firm grip of the government and critics will encounter severe consequences. The electronic ID card system will transform Korea into an electronic prison.

The most fundamental and central reason that brought down the introduction of electronic ID cards are the arguments by the opposing groups that it infringes on the privacy of the public. Such argument eventually spread to the argument against the citizen registration system itself.

### Argument on Possible Infringement of Privacy

The introduction of electronic ID cards has positive benefits such as greater in preparing public convenience, budget cuts, administration efficiency, and the public for the Information Age. However, within its project, it carries the danger of restricting or infringing upon the private lives of the public.<sup>8)</sup> Contracting opinions about electronic ID cards can be said to be

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8) The Right to Protect Privacy, in the sense that it protects the "right to be by oneself (Warren & Wilderness 1996:26-34)", guarantees inviolability of personal information. In this same line of thought,

one of the most important social agenda items in today's Information Age. In this fast changing Information Age, we must promote the fast movement of information to achieve social goals on the one hand, while protecting individual privacy on the other.

Citizen movement groups argued that no matter how many security measures are taken by the government<sup>9)</sup> in protecting the information, the danger of privacy infringement can not be eliminated, so therefore, the project itself should be abolished.<sup>10)</sup> They also argued that the introduction of such a card does not only imply that many identification cards will be put into one ID card, but it means that all information regarding an individual will be computerized, standardized, concentrated and shared. This information has the danger of being unlawfully used by other individuals or by the government, and private lives can be violated and people can be controlled.

One of the common ways that the electronic ID cards can infringe and restrict people's lives are as following. First, if it acquires unnecessary items of information, it can disclose private secrets. Second, government institutions can freely use this information in the name of good of the public.<sup>11)</sup> Third, unlawful disclosure of private information can be misused for political and other self-interest purposes.

Such possible danger of privacy infringement brought about a confrontation between the government who wanted to introduce the electronic ID card system for its administration efficiency and the citizen movement groups who value privacy rights. Eventually, such an hot agenda of

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privacy protection in the Information Age guarantees individuals the right to restrict access and control of one's personal information in collecting, producing, distributing and providing information. In trying to find the balance between the free flow of information and the protection of privacy, the government should be able to collect and process information for social purpose, however, the owner of the information must have a certain degree of control over the information.(Chung, 1997:2-3).

9) The government, who is the policy proponent of this project, argues that because the government has taken enough measures for protecting privacy rights, that it won't be any problem. The government argues that strong measures to protect against government infringement and the external leakage of information have been taken, and it won't cause any problems.

10) According to the opposing view, taking care of technological and institutional measures will not protect security and prevent the leakage information. The fundamental problem lies in the people themselves. The Korean administrative system is not very strong against corruption and physical protective measures are only up to today's technology. Furthermore, the electronic ID card system is a huge system. The idea of it creating a security system on the level of military security is unrealistic as it is too costly.

11) The electronic ID card system is like having the public carry a personal computer, and by connecting the national information web to each PC, it has the effect of having the whole country integrated in to one system. Therefore, the public and business sectors cannot help but use this ID card system as its accurate and fast identification system. The Parliament and the Judiciary branch may not be able to use the ID system, but the Administrative branches will be able to use this information at all times. Secret database of the intelligence agencies can be integrated into a well-standardized and organized ID card information databank. Eventually, the President will be the only one with realistic control over the information and this will weaken the separation of powers, the basic principle of democracy.



protecting private privacy in the Information Age was determined by the public who showed strong opposition to the project.

## Discussion on the Validity of Citizen Registration System

The criticism against the introduction of electronic ID cards eventually spread to the criticism against the 50 years old citizen registration system itself.<sup>12)</sup> The citizen registration system was introduced in the supreme legislative council during the Park Jung-Hee Military regime whose objective was to effectively manage the public. The mandatory bearing of ID cards was passed at the Legislative Council for National Security without any public hearing. Therefore, it is criticized for being administration-oriented as opposed to public-oriented(Kim, 1997).<sup>13)</sup>

Another aspect of the citizen registration policy that creates problem is the citizen registration ID card.<sup>14)</sup> The ID card was introduced on the intention of identifying spies and other social criminals. Therefore, it contains more than the basic information (name, address, picture), such as information (finger prints, military duties, permanent address, family trait, specific serial numbers, etc.) that is inscribed on the ID card.

Therefore the information that is provided on the ID card includes information that can infringe or restrict free activities of individuals. Some of the main criticisms for the citizen registration system are (according to Kim KiJung, 1997), first, because it requires fingerprints from all citizens, and that it has the perspective of looking at all citizens as criminals. Second, infor-

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12) The current citizen registration can be traced back to Japanese colonial period when in March 29, 1942, the Choson Central Command Headquarters announced residential report regulation. After the liberation, each city and province issued citizenship and province residential card. On Jan 15, 1962 the Residential Act was written, but it never went into effect. Instead it was replaced with the Citizen Registration Act (Law no. 1067) Ever since, it has grown in considering the North and South Korea confrontation. Currently, it deals with 140 categories of information, some of which are more than what the law dictates.

13) It may be reasonable for us to be obliged to report our residual status for administrative purposes, however, a system that requires comprehensive and mandatory reporting of residential and family status has the danger of infringing on human's rights to live in dignity and happiness. It is also clear that such system can restrict the public's activities, and efforts must be made to prevent social loss from this system. However, because the citizen registration system was introduced and expanded without such procedures, it has become a major reason for the free circulation of personal information.

14) The citizen registration ID card system was not introduced in the original Citizen Registration Act. However, it was introduced in the first revision on May 29, 1968(Law no. 2016). This revision did not make issuance of citizen registration ID card mandatory, however, in the 2nd revision on Jan 1, 1970 it made issuance of the citizen registration card to anyone 18 years of age mandatory on the reason "to help distinguish spies and criminals for security reasons(one of the reason for revision)" and made it mandatory to show one's citizen registration card when asked by police or lawful authority. Following, on Dec. 31, 1981, on the 4th revision, the age for the mandatory supply of a citizen registration card was lowered to 17 years of age.

mation on one's permanent address, head of the family, military services, and date birth are not very relevant in identifying an individual.<sup>15)</sup> Third, even in the case of disclosing the citizen registration number, the number contains enough private information that can be infringed upon.<sup>16)</sup>

The pro-argument for the citizen registration system is that it can track population movement, help administration efficiency, track down criminals to maintain social security and order, and provide effective management system for national human resources.<sup>17)</sup>

Whatever the argument for the citizen registration system is, one thing is clear. Its criticism has brought about a negative impact on the introduction of electronic ID cards.

## Conclusion

No doubt the national personal data system will improve the efficiency and effectiveness of government administration, however by creating this kind of system containing information on every citizen, it will prove to be severely damaging to our society in the long run.

Society is an outcome of a social contract that takes its opinion into consideration; but as it is apparent, in the wake of the new card system, the contract might be broken. Though the government withdrew the electronic ID card project in 1999 in the wake of heavy protest, people should continue to protect their privacy and make sure that such crucial information is protected away from the possible encroachment of the government.

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15) Article 17 of the Korean Constitution specifies that everyone has the right not to identify themselves except in specified situations, and even in such situations where identification is necessary, citizens have the right to identify only the minimal necessary information. The citizen registration ID card itself can be criticized for violating this constitution. Especially in Korean customs, the rule of seniority, military duties and birthplace are some of the standards of evaluating a person. By making the public mandatorily identify such information can be criticized for threatening the existence of privacy right.

16) Even though only with the citizen registration number itself, one can identify the birthdate, birthplace and sex, apart from the citizen registration ID card, a set of information on an individual is being circulated without any problems.

17) Looking at some of the uses of the citizen registration system, first, it is used for national and local administrative purposes and it publicly certifies personal information. It is absolutely necessary for election, taxation, education, military service, housing and welfare, as well as for earning degrees, getting jobs, and in financial and property trade. Second, it is used as a base material in formulating and implementing national policies. For example, it is necessary for policies such as property and financial ownership reports and our comprehensive land tax system. Third, it is used in issuing a passport, driver's license, medical insurance, certification, and credit card. In case the government brings an end to the citizen registration system, it affects around 423 other laws and regulations(126 laws for maintaining national order, 118 for economic stability and 69 for social and welfare) and can bring much social confusion. In such case, if a person requires a proof of personal identification, he or she must obtain a public notary or certification from a lawyer, which will be a huge burden to the public.

The issue of introducing an electronic ID card has a double side where one, it is beneficial that it provides administrative efficiency, while on the other, it has the danger of infringing upon private lives. It seems now, as the project to introduce an electronic ID card has been rejected, that it has been a costly and time-consuming effort. However, it has shown us enough lessons of its own.

First, it made us realize the necessity to be more aware of the privacy issue in this Information Age. As the information on individuals is growing in the databank of the government, there is growing fear for its safety. In today's society, it is easy to expose information about one's personal life, financial status, personal relationships, and health-status to an unexpected observer. The problem of the electronic ID cards brought more attention to this problem.

Second, it showed that the government policies and projects must be implemented with more detailed study on public consensus and policy preparation. This project was first introduced in April 1995 at the Cabinet Meeting and pursued in 1996, which left very little time for its preparation. As a project with no such precedence anywhere in the world,<sup>18)</sup> the government gave very little time to look over all possible problems that could be encountered.

Even though the electronic ID card project has been abolished, there are many issues regarding the issue of privacy that was raised which deserves much attention from both the government and the public sector. As shown through the electronic ID card project, the privacy issue will continue to be an important agenda in the Information Age. The government must immediately bring necessary revisions to the Personal Information Protection Act to ensure citizens that the government is ready to face the Information Age that respects the quality of life and dignity of the public. Along with such effort by the government, the public must have continuing interest in the protection of privacy. The public must not wait until a law or a legislation is passed in the Parliament to begin criticizing and to bring it to an end. Rather, the public must show interest from the early stage of planning to create an effective policy.

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18) It is difficult to find a similar case like that of the Korean electronic ID card project. Only Taiwan has issued IC cards, started in 1999, that has information on personal information, picture, medical insurance for all citizen 14 years of age. Currently, in major OECD countries like US, Germany, France, and Japan, social security card, medical card, and welfare cards are being used for personal identification, and especially in United States, driver's license card is used widely for personal identification.

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