Korea’s Informatization Policy to Deliver ICT Use in Everyday Life
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Republic of Korea has shown the world a remarkable performance in moving towards an advanced ‘Information Society’ in the modern era. Information infrastructure has been efficiently deployed, equipments have been widely spread, usage skills have been improved, applications have been well designed and lifestyle has been well integrated within the information transition led by the new ICT. It is important to note, however, that a complete development was possible due to not only technology and infrastructure establishment alone but also promotion of informatization culture involving the nation’s willingness and capability to utilize new ICT. Informatization culture may include changing mindsets and attitudes of information use, supporting sound information ethics and environments, enhancing citizens’ information-using capabilities, spread of information-centered lifestyle and establishing relevant laws and regulations.

Such achievement was not a guaranteed one, and the government’s great effort of policy design and actions were crucial for success. Overall, information policy to establish information culture among citizens’ everyday lives and its useful outcomes have been developed and enhanced through four stages of informatization development; preparation stage (1984-1989), structuring stage (1990-1997), utilizing and stabilizing stage (1998-2001), and enhancing sound information-using stage (1998-2001). Through such continuous effort to restructure policy initiatives in order to adequately match the changing environment and its needs, and implement policy actions in an effective way, informatization culture in Korea has penetrated into many people’s daily lives through many ways.

This report has compiled successful cases of such policy efforts that occurred among different segments and aspects of informatization culture. The main objective is to introduce successful stories of informatization culture told by the policy recipients themselves within the realistic environment. It is our wish that the report will shed light into policy development within the advent information society, and enlightens the insights and ideas of lagging nations in the global community, the ways to go about and the benefits that can be shared with many in society and in the world.

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Introduction

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I. Introduction

The remarkable growth of the Internet in Korea has repositioned the country into an advanced information society in the modern era. Korean government’s enormous policy efforts to build a strong Internet infrastructure have substantially contributed to such achievement. It is important to note, however, that the rise of informatization culture led by the Internet has occurred which facilitated the rapid information technology development. As full benefits of information technology can only be gained when used for social means, the wide use of the Internet integrated within people’s everyday life has fueled the nation’s information development.

The concepts of informatization culture in this report include changing mind-sets and attitudes of information use, supporting sound information ethics and environments, enhancing citizens’ information-using capabilities, spread of information-centered lifestyle and establishing relevant laws and regulations. It is crucial to consider that in the case of South Korea, continuous restructuring of policy frameworks occurred to match the changing environment of informatization culture and its needs in the information society.

Informatization policy to establish information culture among citizens’ everyday lives and its useful outcomes had been developed and enhanced through four stages of informatization development. First, awareness of information culture among public as an important element to drive the overall informatization development began to arise in the 1980s. This can be regarded as a ‘Preparation Stage’ (1984 - 1989) to move into an information society. Second, such social emergence was systematically promoted at a national level in the 1990s categorized as the ‘Structuring Stage’ (1990 - 1997) followed by, third the reinforcement of informization as a national tool in the ‘Utilizing and Stabilizing Stage’ (1998 - 2001). Finally, moving to an ‘Enhancing Sound Information-using Environment Stage’ (2002 - present) aiming to improve the quality of information culture.

First, during the Preparation Stage’ (1984 - 1989) much focus of policy was given to the spread of awareness of new ICT and its information culture among the public, and establishing an informatization environment. For example, informatization awareness among citizens and popularization of new ICT were enforced by launching ‘Month of Information Culture’ from 1988. Further, environment was established by producing ICT specialists and encouraging information-using capabilities among people through ICT training programs.

Second, during the Structuring Stage’ (1990 - 1997) great policy effort was put forward to expand informatization culture at a national level. This was promoted through wide range of ICT training programs provided to all parts of the society together with the spread of computer and Internet access. Such activities were initiated by nationwide informatization policy. In addition, recognition of importance to encourage informatization in provincial and rural areas emerged through policies such as promoting ‘rural-based computer classes’. In particular, the 1st Basic National Informatization Promotion Plan’ (1996) was established further developing ICT access and use at a public level through supporting public ICT training programs and free Internet access centers. Programs to distribute used PCs were first initiated during this stage. Further, initial movement to launch e-government system began to arise.

Organizational restructuring was enforced integrating informatization policy and telecommunication policy.

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Introduction

A disabled man using a computer with support of assistive technologies
Immigrant wives attending an IT training course provided by a local IAC
A senior volunteer fixing a used computer
Internet addiction prevention program for young students
A blind woman using a computer with support of assistive technologies
Quiz contest on the Telecommunication Relay Service

1) Informatization policy refers to government initiatives focusing on the usage of information technology such as computers and the Internet and its supporting environment.
2) Telecommunication policy refers to government initiatives for promoting telephone usage through network infrastructure deployment and telecommunication industry development.
redesigning informatization laws and regulations. Policy agenda focused on ICT policy and users’ information environment. At this point, a holistic approach of industry, government policy, social culture, and individuals’ information use must be acknowledged.

Third, the ‘Utilizing and Stabilizing Stage’ (1998-2001) enforced the development of informatization as a key national tool aiming to establish a Cyber Korea-21, a society fully linked by the Internet and its online activities. In order to empower the nation’s informatization intensive policy effort was spread for Internet access and use throughout all social segment, thus specific ‘digital divide’ policies to assist various information disadvantaged groups were actively promoted during this period.

During this stage, ICT development was promoted through the Asian Financial Crisis, in which ‘informatization’ and ‘ICT industry’ were stipulated as a key national strategy for economic recovery. Thus, between 1998 and 2001 was a transitional period towards an ‘Sound Information Using Stage’ of information culture in which online services were aggressively promoted across the whole society and restructuring of private sector IT market occurred. During this period, policy focus also shifted from encouraging citizens’ information awareness to promoting citizens’ information use as an effective social tool. Accordingly, IT education programs to enhance people’s information using capabilities were widely implemented across all parts of the society. Such policy actions and social change were further promoted and developed throughout the years finally entering the ‘ubiquitous society’. Other informatization policies such as ‘Basic Act on E-Commerce’ (1999) ‘Act on Electronic Signature’ (1999) ‘National Information Education Programs for 10 million citizen’ (2000) ‘e-Korean Education Plan’ (2001), ‘Act on the Digital Divide’ (2001), ‘Law to Establish Online Public Administrative System’ (2001) were initiated at this stage.

Lastly, ‘Enhancing Sound Information-using Environment Stage’ (2002 - present) recognized the importance of the quality of informatization development thus initiating to establish various security and consumer protection measures within online activities and preventing negative impacts of Internet use. During this stage ‘Internet Addiction Counseling Center’ was first established and improving the quality and content of people’s information use was emphasized. In parallel, quality of informatization culture has been emphasized addressing problems social inequality, awareness of information ethics, and preventing negative aspects of online activities. Such comprehensive development of information culture has empowered Korea as an advanced information society experienced with effective national strategies and knowledge.

This report has compiled successful cases that occurred among different segments in different areas of informatization culture. The key objective of this report is to introduce successful stories of informatization culture in people’s everyday life to countries that are lagging ICT development and use. Through illustrating empirical cases of individual citizens and communities within their everyday life, the report aims to provide a realistic view of policy implementation and outcomes of informatization in society. Best cases of policy actions in this report consist of Campaigns for Informatization Mind-set and Awareness, Informatization Education, Programs for Information Disadvantaged Group, Actions to Spread Informatization in Rural Communities, Information Access Center & PC Distribution, and Information Ethics Program.
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Korea’s Informatization Policies to Promote ICT Use

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1. Campaigns for Informatization Mindset and Awareness

A. Policy Overview

In the late 1980s, the importance of information culture in society was recognized calling for policy initiatives to promote people’s awareness of the benefits of new information technology and its new culture in everyday life. Political measures to promote informatization culture were first introduced back in 1988, by reorganizing the ICT Training Center, which had been established in 1984 for developing human resource expertise, into the Information Culture Center. During that year, an Information Culture Committee was formed by public opinion leaders in various fields, and the Month of Information Culture was initiated through a number of campaigns, including an exhibition, publications, and events. Starting from 1988, June was appointed as Month of Information Culture for the purposes of the comprehensive promotion of informatization. More detailed objectives of the Month of Information Culture are as follows: firstly, to increase people’s interests in information society; secondly, to improve the nation’s competitiveness in terms of information technology and prepare for future technology; thirdly, to enhance understanding of information culture and promote its popularity, and, fourthly, to facilitate the use of information by the public.

First of all, a transition from ‘telecommunication network and device-based stage’ to ‘computer-based informatization stage’ occurred in 1988. That is, policies of informatization culture were combined with the previous telecommunication policies mainly centering development of telephone and technology devices. This was initiated through the establishment of Information Culture Center. Until the late 1980s, Korea’s informatization policy had exclusively focused on development and diffusion of telecommunication such as provision of landline telephones. However, in the late 1980s, citizens began to recognize the importance of new ICTs and its use in everyday life which required modification of informatization policies involving computer education and training. At the time, the concept of information culture was regarded as emergence of people’s attitude and perception required for the diffusion of informatization, focusing on computer education and informatization campaigns. Consequently, such extension of policy action shaped the Korean informatization policy within a comprehensive framework.

The government announced 1987 as the ‘Year of Information and Communication Technology’, to promote people’s awareness and interest about informatization driven by new ICTs. In January of the following year, the Information Communication Training Center was expanded and reorganized as the Information Culture Center, inaugurated to implement information culture policies. In 1989, a variety of lectures, demonstrations, and exhibitions were performed, and ‘Informatization Campaign Hall’ opened to provide people with opportunities to experience and learn how to communicate using computers. In addition, the National Informatization Culture Awards and campaigns to widely distribute computers were initiated to promote informatization in society.

In 1990, ‘Comprehensive Policy Actions for an Information Society’, a comprehensive policy framework to promote a nationwide informatization culture was established. Additionally, in the late 1990s, many private organizations, such as press corporations and information communication companies, participated in informatization campaigns.

The government announced 1990 as the ‘Year of Information Culture Campaign’, with support from the Committee for Korea Informatization Culture. From this point on, ‘Informatization Promotion Basic Plan’ was established in 1995, followed by ‘Informatization Promotion Basic Plan’ in 1996, Promotion of informatization culture has been referred to article number 12, and has been considered as an important element of national informatization policy.

Between 1995 and 2002, the availability of high speed information communication network played a critical role in the process of informatization. From 2002 to 2004, special attention was given towards addressing the problems of the ‘digital divide’ both at a national and global level. To achieve this, both ‘e-Korea Basic Plans’ and ‘u-Korea Basic Plans’ were established which indicates a movement from Internet-based informatization towards an

3) The Act covers all areas of national informatization including not only informatization culture but also telecommunication infrastructure deployment, IT industry development, launch of egovernment, and promotion of e-commerce.

4) The Plan has been reformed every five years.
ubiquitous society. The e-Korea Strategy Plan focused on the increase of the Internet user population and informatization education and training programs for daily use. On the other hand, it was during this time when the Korea Information Culture Center was upgraded to become the Korea Agency Digital Opportunity & Promotion, pursuant to Article 16 of the Act on the Digital Divide of January, 2003.

Most recently, initiatives to develop information culture have been promoted through the Basic Strategy Plan moving towards a new paradigm of a ubiquitous society which is being able to share information and communicate beyond time and space. In other words, if informatization is computer-oriented, u-informatization is non-computer-oriented such a mobile phones and other wireless value-added devices. In this stage, the application of virtual space is increasingly emphasized as more people are adopting ubiquitous services in everyday life. Outcomes of such policy initiatives to spread informatization culture to public are illustrated through successful cases as introduced in the following.

B. Successful Cases

1) Social and Economical Benefits of Informatization Culture

One citizen’s story describes how a man in his 50s was able to overcome losing his job during the Asian Economic Crisis through becoming a computer instructor. In 1998, he lost his job due to the bankruptcy of his company. Every day, he went to the library to search for jobs. One day, he came across an article about computer instructors. "I thought to myself that I could do this job. Although I am not very competent at computers, I used computers every day at work." The job also met his requirements, as it created little risk. After posting an ad about such teaching computer skills, some people contacted him to take lessons. Many were doctors, pharmacists, housewives, and children. Thus, he successfully launched his business.

A taxi driver improved his job efficiency by using a personal websites. If you have been a passenger of the taxi driven by Kim, Won-shik, you would be impressed with his website address, which appeared on the back of his taxi, and on his business card. His website provided useful information regarding taxis, such as how to become a taxi driver, the process of taxi registration, and management. Popular sections were "My Taxi Story" and "Lost and Found." He posted videos of his experiences as a taxi driver. His story focused on the people he met while driving his taxi. The section he was most proud of is the "Lost and Found" section, where people posted messages to find belongings they had lost in a taxi. "Some guy left his wallet in my taxi and contacted me through my website. A couple of times, people recovered their belongings that were left in other taxis through my website. It gives me great pleasure to be able to help other people with my homepage." In 2001, one citizen used an Internet website to boost his business. He used a computer to manage his supermarket, and set up a homepage to offer information that he had acquired while operating his supermarket over ten years. In order to differentiate his website from others, he databased his supermarket management information and adjusted the content so it would be better positioned for search engines. Due to his effort, his "Cyber Korea Supermarket" website was appointed as a website providing consultant services for other businessmen resulting about 200 thousand people visiting.
video chatting with my brother in Japan introduced online culture at home. It felt like he had been with us all along. Our family could perceive how online culture could enhance family relationship even going beyond the ocean.

Family websites also facilitated communication between family members. Father who is managing a website for his family describes “We use the Internet to share each other’s experiences, stories and thoughts through our website” After creating a website, the father spent more time talking with his children. They posted messages and photos to share their experiences with each other. That’s why they always carried pocket books and pencils whenever they went on family vacations. One interesting point is that they kept their computers in their parents’ bedroom. “Our children use the computer in our bedroom so we can monitor their usage and talk together.” This kind of family activity showed the very positive side of the internet.

3) Informatization Among Young Generation
Since 2000, text messages became a new way of communication among young generation. The most intensive users ranged from aged 25 to 35, where text massages were even used to communicate with foreign business partners abroad, contact their colleagues in other provincial areas, and build a online school reunion community. Interestingly, while many companies restricted online messages during work hours due to personal use of online messages, some firms started to encourage such online communication for work. Employees of SME (Small Medium Enterprises) remarks on its benefits: “Using online messages to communicate for work actually facilitates the work process with speed.

The first Website was launched in Korea in 1993, with personal websites gradually emerging from 1996. Ten years later, at present, people spend a large portion of their lives on the internet, and new cultural activities are established online, such as the sharing of their thoughts, ideas and information. One example of this is a cyber community called the ‘Blog,’ where people can freely post their thoughts and photographs, just as they show personal journals to public. Currently, there are as much as 20 million online journals alike. Online members drop by in other’s ‘blog’ pages, browse, and leave comments. Just by a click, people become to share feelings and experiences with others, and even extent their off-line meetings. This presented another new communication culture among the young generations.

4) Local Online Communities
Wide spread of information culture occurred through online communities and information sharing in local districts. Modernization has diversified people’s lifestyle to pursue nuclear family structure, individualism, and less interaction among neighborhood. Such fragmented community culture has been overcome through online community built by the Internet. These communities provided a neighborhood with local information services and a comprehensive network, which can be managed through a cooperative management system among neighbor users.

In 2000, one citizen as a housewife in Gohyang city, Kyounggi province was found to spend increasing amount of time in front of the monitor. This was largely due to Wooriapart.com, an online community service portal, subscribed by the apartment residence where she was residing. Thanks to the service, all important announcements were made on an internet website that could be accessed by residents at their own convenience.

Additionally, residents could voice their opinions on the website. Any enquiries or suggestions could be posted on the internet and shared with other community members. In addition, useful information about shopping malls, hospitals, and restaurants became easily accessible, and residents developed friendships through their community activities. “Although it was an online relationship, I felt very connected to the other residents. When I came across a stranger in the hall, I began to wonder whether she was the one who posted a message I had read.”

Mr. Kim, who worked as a monitor for the apartment websites, enjoyed visiting the section called the “Love Room.” Among many useful contents including community announcements, people’s discussion room, and bulletin board, Mr. Kim developed great affection towards his neighbors through the section where any residents could freely leave their essays about everyday life. In this section, stories ranged from experiences of baby care, opinions of popular TV drama series, and even episodes of husbands and their dishwashing skills. During one summer, a sad story about a child suffering from childhood cancer was posted. Many residents worried a great deal about the child, and donated money to cover his medical expenses. This kind of active participation created an open-minded online community.

5) Expression of Citizens’ Opinion via Online Network
As a new information culture became more prevalent, public opinions were easily identifiable on the Internet. The case regarding Dok Island illustrates a good example. As the island located between Korea and Japan, it is a land which the Japanese have been insisting as their land. This has been an conflicting issue between Japan and Korea for a lengthy period Japanese politicians’ public announ-
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C. Limitations and Implications

To overcome its industrial disadvantages, Korea has actively pursued the informatization of its society. As a result, Korea was ranked first in terms of high speed internet network accessibility. Accordingly, cyber space was recognized as an integral part of people’s lives. However, such rapid growth of online activities also poses as obstacles to further informatization. This phenomenon demonstrates that technologies that are not based on ethics eventually generate negative effects. As a consequence, informatization policies that promote cyber ethics should be implemented in order to resolve these issues. Beneficial meanings of informatization cannot be assessed from simple information access but through how people adopt the new informatization culture to pursue their life goals in society.

These days, people tend to use information without applying any criticism or judgment. People should realize that a casually posted message can hurt other people’s feelings and even damage their life. Unethical language, false information, and cyber theft can grow into cyber crimes. It is necessary to establish information ethics to check inconsideration and excessive abuse. Ethical introspection and self-recognition should be adopted for the positive aspects of an information society to win out.

In this regards, current information culture policies face many challenges to be overcome. Having achieved a wide spread of informatization culture in society, access-based policies must shift its focus towards diverse-patterns of use and its quality. Further, along side with “digital divide” policies to deliver information opportunities to marginalized groups, the groups’ different characteristics and circumstances must be taken into account. Consequently, policies to match their specific characteristics and needs are essential.

Furthermore, in 2004, Korea established the u-Korea Basic Plan initiated to launch a sound ubiquitous lifestyle by 2013. This implies that in order to accomplish such goal, it is also to consider that information inequality persisting in e-society must be fully resolved. If not, such inequality will exacerbate, ultimately bringing more social cost in terms of welfare policies and social development. This clearly shows the complexity and diversity of information culture policies.

2. Informatization Education

A. Policy Overview

The Information Communication Training Center was established in 1984 for the purpose of developing human resource in order to promote informatization. In 1985, various education programs were implemented for those graduating with non-computer related majors, producing 1,800 informatization ICT skilled experts. Since then, more than 2,000 people have completed the course every year. By 1995, a total of 32,000 people have attained informatization education programs. However, such informatization educational programs were targeted to producing IT specialists rather than citizens in general.

1) Informatization Education Plan for 25 Million People

It was in 1999 that a comprehensive informatization education program for improving digital literacy of the entire population was implemented. Since President Kim, Dae-jung had announced plans to support computer education in his inauguration speech, the government actively established plans to promote informatization culture and awareness among the public with alongside of building of information communication infrastructure. The Informatization Education Plan for 25 Million People was the first national informatization program for the purposes of educating the general public on information using capabilities and knowledge.

At that time, sixty percent of the public did not know how to use computers, and there was neither a systematic learning environment nor sufficient pool of IT instructors for informatization education. According to the statistics, only 64.5 percent of people aged 10 - 20 used computers, while 20.9 percent of those used the Internet. For those in the age group of 50 - 60, their computer usage rate was 6.9 percent, with a mere 1.2 percent of Internet usage among them. Among computer users, only 25 percent used PC communications or the Internet, with the rest using
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computers for games or word processing only.

The Informatization Education Plan for 25 Million People implemented different education strategies to different target education groups. First, it focused on 10 million students, 0.9 million government officials, and 0.6 million military servants. This was later extended to include the disabled, housewives, the unemployed, farmers, and fishermen. In addition, broadcast media organizations, such as television, cable, and satellite television stations were employed to educate people about IT communications, with informatization education textbooks and information communication terminology book also being published and distributed.

Under this plan, an Information Education Center was established at a post office to offer education services to the general public. In addition, IT instructors were trained and supported through the Information Culture Center (ICC). Such Informatization Education Plan for 25 Million People, implemented from 1999 to 2002, provided the basis for the widespread informatization in society.

2) Informatization Education Plan for 10 Million People

As the digital revolution has been spreading rapidly across the world, Korea has fueled its move towards a knowledge-based information society since 2000. At the same time, however, such informatization was unevenly spread leaving behind the socially disadvantaged. This was perceived to aggravate social and economic inequality in society, thus, policies to address information inequality were recognized. Consequently, a basic information education plan was implemented for those 10 million people who had a lesser opportunity for education from the disabled, housewives, the unemployed, farmers, and fishermen. In addition, broadcast media organizations, such as television, cable, and satellite television stations were employed to educate people about IT communications, with informatization education textbooks and information communication terminology book also being published and distributed.

By 2002, informatization education programs were delivered to 200,000 disabled, 170,000 farmers, 20,000 fishermen, 170,000 seniors, 2 million housewives and 30,000 prisoners. In addition, general citizens, public servants and teachers were educated through the Informatization Education Plan for 25 million people program seen above. As a result of this program, at the time of 2002, a total of 10,800,000 people including housewives and farmers who had experienced IT education, showing a satisfaction level of 80 percent. This program was provided nationwide in order to encourage people’s information using capabilities. Such program played an important role in promoting nation’s informatization development including increasing Internet using population, developing IT industry, and expanding information infrastructure.

3) The Second-phase of Informatization Education Plan for e-Korean Capacity

After the Informatization Education Plan for 25 Million People and 10 Million People, respectively, numerous positive effects were identified, including the increased number of Internet users and the reduction of information gaps. However, the information was not being used productively by many people, and only 36.9 percent of the population was capable of using computers at an advanced level. In other words, the content of the education program remained limited without any practical application for social and economic means. In addition, the negative effects of informatization were identified as a serious social issue, requiring preventative measures. Accordingly, policy efforts focused on promoting productive and sound informatization, marking the second-phase of Informatization Education Plan.

The Second-phase of Information Education Plan to encourage e-Korean capacity shifted its focus from basic IT skill training programs to practical application-based education. That is, the Plan aimed to encourage an innovative e-Korean capacity where all people would become consumers as well as producers of information, and to be able to make use of informatization skills in daily life and workplaces.

The education content could be classified into three fields: firstly, the development of e-Work Korean to improve production of farmers, fishermen, employees, teachers, and government officials through IT application; secondly, the development of e-Life Korean for the disabled, the elderly and rural community members, and; lastly, the development of e-Ready Korean for students, prisoners, and soldiers seeking to enter or commence social participation at another level.

This plan was implemented between 2001 and 2005, and provided education services including offline visit & online IT education programs, job competency education programs for those employed, unemployed and self-managing employers, and various education programs for 2,555,000 people, consisting of teachers, the disabled, and the elderly, reaching 1.89 million e-residents who could actively make use of information in daily life.
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B. Successful Cases

1) Informatization Education for 25 Million People Including Military Service Personnel

An interesting activities among many programs based on the Informatization Education Plan for 25 Million People, in 1999, can be presented as the Internet education programs to military servants. In Korea, men are required to serve in the military for two years in their 20s. Considering that young male participants could quickly take up the IT education and show significant outcomes, this program was most beneficial in terms of spreading productive IT use.

One military service personnel, Song, Yong-jin had majored computer science at the university, who was serving for information, communication, and data processing division, met the opportunity to attain telecommunication skill and various licenses in advanced specialties. Due to this opportunity, he was able to link well to his career back in the civil society, and take advantage of acquiring a new job. Further, he recalled how he enjoyed teaching his senior military officers the computer and the Internet, resulting in his uncooperative and could not find any meaning in his work. However, he gradually became more greatly involved in his work, and even became to participate in Internet ethics education and counseling programs. As a result, he changed to be positive about the society and even acquired IT professional license such as word processing and MOUS(MicroSoft Office User Specialist).

2) Use of Military Human Resource as Instructor - Internet Education in Schools

In 2000, when computers and Internet access had not diffused across rural areas, military soldiers were employed to assist student’s IT use in rural schools. During this period, a computer lab of high school in Chungju province was opened during weekends due to the Internet School conducted by military soldiers. Such activity contributed to the school’s atmosphere with lively students having fun designing their own web sites and using other programs as well as helped the soldiers to experience the civil society. According to a servant who had participated in teaching the students the Internet suggested that Internet education will be crucial to facilitate communication and information sharing between the students.

3) Alternative Schooling & Informatization

Traditionally, education is greatly emphasized within the Korean social value. In this respect, alternative schooling for those who lack opportunity to attain formal education was initiated to implement online activities through Internet use and public informatization for students with difficulty. As Internet use penetrated into many people’s lifestyle, cases where e-learning program was gradually incorporated into the alternative schooling curriculum occurred. The initial aim of establishing an alternative schooling was to overcome the limitations of public education, which gained recognition in the 1990s. As the number of student having difficulty in adjusting to the common schooling system increased, perceptions of ‘alternative schools’ changed to ‘special assistive schools’.

In 2001, such alternative schools were linked online, as a cyber-school. Best examples include ‘Ghandi School’, ‘Durae Nature High-School’ and ‘Home School Guide Korea’. Although they are alternative schools, students are able to continue their studies to colleges and universities through this education system. Online content consists of school web site, e-learning curriculum and summer courses, in a very opened environment.

4) Prisoner Education

Number of Internet-related professional licenses has provided new opportunities in job market. In particular, such Internet-related competence has been important for prisoners and probationers intending to re-enter the mainstream society. Thus, IT training programs for prisoners and probationers were included within the 2001 Informatization Education Plan for 10 Million People. That is, informatization training programs were included within the previous training programs such as technical education of automobile repairs and engineering specially provided for this group.

One student aged 19 was under probation convicted of computer hacking and illegally selling web site items. He was sentenced to 200 hours of social service and 2 years of probation. The type of social service which he was required to conduct was related to used PC distribution service where he was employed to deliver the used computers provided by the Korea Agency for Digital Opportunity and Promotion to the underprivileged who was missing out on the benefits of informatization. At first, he was uncooperative and could not find any meaning in his work. However, he gradually became more greatly involved in his work, and even became to participate in Internet ethics education and counseling programs. As a result, he changed to be positive about the society and even acquired IT professional license such as word processing and MOUS(MicroSoft Office User Specialist). Thereafter, he has not committed further crime. As such, many prisoners and probationers sentenced for cyber crime were able to find new meaning in life through information ethics education and counseling. More topics will be discussed regarding information ethics in another chapter.

5) Hometown IT Volunteer Group

The Second Phase of Informatization Education Plan for Korea was implemented until 2005. The plan focused on providing IT education services to the disabled and the elderly in order to reduce the information gaps emerging in society, as well as to use IT productively in the areas of agriculture and fishery. In order to achieve this, ‘Rural Hometown IT Volunteer Group’ was established. The
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6 trillion won. Further, other positive impact as to increase employment was shown through the programs. Such successful outcomes can be explained by programs focusing on more practical training such as linking directly to labor competence designed separately for each different group.

Nevertheless, limitations were found. First, understandings of underprivileged were insufficient and inaccurate. This can be due to diffusion-based policy design, and general citizen-based programs. However, considering that such informatization education programs must be shared the goal of ‘Digital Divide Resolution Act’ (2001) the programs should have taken into account the marginalized groups to a greater extent. Second, level of informatization capability among the general population to produce beneficial outcomes in daily life and work remained insufficient. One’s information using skills does not necessarily relate to one’s usage to online banking, online shopping and use of online Government service. Considering that the core aim of informatization education policy was to enable citizens to be able to make use of new ICT skills to solve social problems in everyday life context, actual outcomes of education programs can be regarded to remain limited. Lastly, cooperation between institutions was inefficiently managed. In general, the informatization education programs were conducted jointly by the Ministry of Information & Communication and ten other ministries. While Education Plan for 5 Million People was also implemented jointly by seven different ministries, cooperation process between the ministries was not systematic and effective enough. Although it is critical to eliminate redundancy in educational infrastructure, by employing an efficient utilizing system, this was taken into up from 2005. Furthermore, the “Information Education Committee” aimed to promote educational infrastructure sharing was poorly managed. Such inefficient system could be improved through forming a committee composed of practical officers from each institution, and regulate their contribution and operation.

3. Programs for Information Disadvantaged Groups

A. Policy Overview

1) Informatization for Women

As of 2007, information inequality regarding of the female population has not been considered as a critical issue. However, in the late 1990s, female population was classified as one of the disadvantaged group, along with the disabled and the elderly, encountering difficult in adjusting to informatization. Informatization education and policies for the female population are managed by the Ministry of Information & Communication and the Ministry of Gender Equality and Family.

From 1998 to 2001, informatization education plans for women have been implemented by different age group. The Korea Girl Scout Federation from Seoul, Daejeon, and Jeonju invested KRW 0.9 billion won in various education programs, including Internet searching, OA and multimedia applications for female students. As for college students, computers, network devices, and software amounting to KRW 0.7 billion won worth were provided to seven affiliated educational institutes, including Ehwa, Sungshin, and Sookmyeong Women’s University, in order to promote education in software, games, animation, and multimedia for university students and graduates. These students were also provided with the opportunity to acquire IT professional licenses.

For full-time housewives, a total of KRW 3.88 billion worth of educational infrastructure was supplied across 26

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some 50 local female human resource development centers nationwide, for the purposes of promoting license acquisition and job search as computer instructors and telemarketers.

In 2000, KRW 400 million worth of funding was provided across 4 public centers for women in order to facilitate IT education programs, in which women attained various courses such as web-designing course. Such Internet training programs for homemakers received enthusiastic responses from many recipients. In February, 2000, the Korea Agency for Digital Opportunity and Promotion designated 769 computer education institutes to exclusively provide IT training courses for full-time housewives. In April of the same year, it added 288 institutes. For those institutes, 50 percent of the education fees were paid by the government. Responses from housewives were explosive resulting with a waiting list for two to three months in order to take these Internet lessons. In order to solve the overly demand for participation, a 40-minute TV program called ‘Your mum’s a netizen’ was broadcasted on an Educational Broadcasting Station (EBS) on TV.

From March, 2000 to December, 2001, a total of 424,159 full time housewives had been educated through this program. In addition, it is estimated that 1.48 million housewives were educated by local government, while the TV program was viewed by 280,000 people housewives, totaling 2.16 million. Further, KRW 0.62 billion were supported to build education facilities, established educational programs for internet use, and for license acquisition across nine female and child welfare institutes. In 2002, the Ministry of Gender Equality and family promoted a number of female informatization policies. Under the guidance of the new policies, the website, (women-net), was operated to provide online IT education for women. From 2005, however, no special IT education was provided for women, as it was identified that the information gaps in terms of gender had significantly reduced due to the rise of women’s social and educational status. Since then, female education programs have focused on more advanced level of IT use. The government further invested KRW 5.9 billion in women-net to improve its quality of service.

Since 2006, there have been no education facilities established specifically targeting general female populations. However, due to Korea’s special circumstances, female informatization education remains in progress under different directions, such as services for female immigrants and refugees from North Korea. In 2007, special education programs, including Korean language courses, were conducted for 1,400 female immigrants and refugees from North Korea, in order to help them adjust to South Korean society.

2) Informatization for the Disabled

In 1999, as part of the Informatization Education Plan for 25 Million People, special information education programs were developed for the disabled in order to improve their quality of life. On April 6, 2000, the Informatization Education Plan for 10 Million was implemented by Presidential order. Based on the plan, the Ministry of Information & Communication and the Ministry of Health and Welfare jointly conducted a special education program for 200,000 disabled people, and established a total of 85 education facilities.

However, the education program was not effectively conducted, as there was no special software or content developed specifically for the disabled targets’ needs. Therefore, in 2001, the Ministry of Information & Communication presented a “Content Development Plan for the Information Disadvantaged Group.” Accordingly, Internet usage rates among the disabled increased from 6.9 percent in 2000 to 22.4 percent in 2002. The number of recipients of informatization education for the disabled summed to approximately 59,000 people in June, 2003. Since 2002, a visiting service was offered to those with serious disabilities and could not commute. In 2003, 555 visiting instructors were hired, and the service has been promoted across the whole nation.

In 2003, wide provision of information communication devices and content, as well as educational material, were substantiated. These items included 4,000 visual-aid screen readers, 50 Braille-writers, and 1,500 hearing-aid video phones, along with 3,000 computers, S/W, and special input devices, worth around KRW 4.5 billion. In addition, from 2003 to 2007, about 54,210 information communication devices and special software items were set to be provided. Assistive technology and contents account to 12.4 percent of the total population (435,402) of the disabled group.

Approximately, 5,000 items of education material and 3,000 informatization vocabulary dictionaries were distributed. In order to spread informatization culture among the disabled group, numerous informatization campaigns and events also occurred. For example, essay contests for best educational activities were held in 2003 followed by the National Disabled People Informatization Festival to raise the social awareness of the importance of informatization education for the disabled group. Since 2005, 142 professional instructors were trained for visiting services, and 112 inactive instructors were eliminated. An IT expert education program was also established by ten educational institutes, including Samsung SDS. As of 2007, 50 thousands IT instructors were produced across 147 institutions, and additional programs for the development of...
advanced skilled instructors by different informatization levels were newly implemented.

3) Informatization of Senior Citizens

Initiatives to provide informatization education programs for seniors began in year 2000 as part of the Informatization Education Plan for 10 Million People. Such programs were managed by the Ministry of Information & Communication with the local post offices and the Korea Agency for Digital Opportunity and Promotion(KADO) was the main channel for educational delivery. In September, 2000, the Silver-net Campaign organization was established to extend IT educational opportunities for seniors through opening life-long educational courses at universities. In 2003, such educational programs were opened across 60 universities.

The Korea Agency for Digital Opportunity and Promotion provided education expenses and materials across public IT educational centers, the Silver-net Campaign organization, special seniors education institutes, and post office-based educational centers. Further, total sum of 210 organizations were managed nationwide, including 60 Lifelong Education Centers, 80 private education institutes, 43 information education centers in post offices, 8 senior citizen information centers, and 12 education centers specially designed for seniors that were sponsored by SK Telecom. Moreover, during 2004 and 2005, private corporations’ participation in this program increased where Microsoft also opened 24 senior IT education centers.

In 2005, as the number of seniors who had attained informatization education increased, Seniors IT Volunteer Group was established where seniors were assisting other seniors with IT use. In the initial stages, 27 groups were organized to help seniors who were having difficulty in learning the Internet. In 2006, Seniors IT Volunteer Group was expanded throughout the nation reaching out to 3,200 senior participants. The volunteer group mainly served to help basic informatization courses and providing counseling services. Additionally, various events were held to promote informatization for senior citizens, such as information search contests and web site-design contests. In 2007, a special program, ‘IT enterprise setup education’, has been initiated to create economic opportunities for seniors and to produce senior IT expertise thus enhance market competence.

B. Successful Cases

1) Informatization for Women

Since 1998, the government has conducted an extensive informatization education campaign for women with great emphasis on full-time housewives. Full-time housewives who are generally excluded from the mainstream economic activities were able to enter the job market through IT capabilities, and gain opportunities to actively participate in society through online community.

In 1997, Jeong, Mae-ja, a mother of two children and pharmacist, became aware of change caused of informatization in daily life, yet lacked confidence to take up the Internet. Apparently, however, in 1998, her children’s school was appointed as an Internet education school, and the school was gathering members to train IT skills to form a ‘Informatization Assistive Workforce.’ After she had gained IT training, she was able to joined the workforce and also provide consulting services for the children. She remarks how this experience had given her other meanings of social life in helping and teaching.

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Further, she set up a web site for her pharmacy and became more involved in her business.

In 2002, informatization education was actively performed through post offices, private corporations, and female job training education centers. Choi, Bong-ran worked as an instructor in the informatization education center in a post office during that period. As a result, such work experience had allowed her to achieve her life goal of enrolling at a college for an academic degree. Only having graduated high school, she had entered the labour market at a young age, had attained IT training at various institutions to finally become an IT instructor at a post office. She believes that informatization education that she had experiences during her work life had provided her two meaningful roles of being a informatization instructor as well as a student.

Due to Korea’s economic growth and short of manual labour workforce, massive in flow of foreign workers and female immigrants in the Korean market both dramatically increased. In this regards, since 2004, the Korea Agency for Digital Opportunity and Promotion has provided informatization education services for such foreigners. By 2006, a total of 31,798 people had received the education, with an additional 1,400 people expected to gain the benefits from the program by 2007. For example, in March 2007, Angelina (aged 23), from Uzbekistan, was learning Korean as well as IT skills at a center for migrant workers. She even commented that since the computer classes were conducted in Korean, she was able to develop both capabilities at the same time.

2) Informatization for the Disabled

As a result of the Informatization Education Plan for 10 Million People in 2000, approximately 200,000 disabled people were able to receive information technology education. Such policy action was further encouraged by the recognition of the importance of the digital divide and the need for IT education among the disadvantaged.
Considering that a holistic social interest and policy is crucial to promote informatization among the disabled group, such policy effort and social recognition provided an important turning point within the field of social policy for the disabled.

In 1997, Kim, Byeong-ho (aged 29), a technician lost his eyesight while working. Due to this accident he had to consider switching jobs to becoming a masseur or physical therapist. However, he proposed to Samsung Electronics an idea of opening a special computer training and employment training center for the blind. The idea was accepted and this program provided him a new job as a computer instructor for the blind. Since he could well understand the relevant difficulties encountered by the blind, the classes were effective and helpful. Kim suggested that if assistive technology could be provided, 200,000 blind people through the internet and was able to start a new life. In 1999, he incorporated “Eye net 21,” for the purposes of developing software for the blind. He developed screen readers, such as “Good Eye” and “Sound Eye 2000.” He emphasized that a person’s disability was not a problem in cyber space, and argued that disabled people should not be discriminated.

Assistive technology devices specially designed for the disabled such as font-enlarging monitors and screen-readers are just as important as education itself. In fact, without such devices, they cannot use the Internet or computers at all. In 2006, Park, Mi-seon (aged 49) was provided with a supporting device for disabled people. She was physically disabled, and had difficulties going outdoors. With the supporting device, she was able to reach the outside world through the internet. She expressed her wishes for more efficient supporting devices for the disabled. These days, government institutes and other public corporations develop many high-quality supporting devices, and provide them at low price.

3) Informatization for Senior Citizens

Informatization education for senior citizens began in the late 1990s. During that time, it was difficult for senior citizens to gain access to computers. In 2000, the SilverNet Campaign Headquarters was established, and as a part of the national informatization campaign, education services were provided to senior citizens at post offices, as well as at lifelong education centers at universities.

In 1999, Shim, Yoon-guen, in his 60s, was able to use computers more easily than other seniors due to this previous work experience involving typewriting skills. Thus, he was more familiar with the computer keyboards. Further, he had used the computer for word processing in the 1980s, and found the way to communicate through the Internet in the 1990s. Finally, in 2000, he became the head of the SilverNet Campaign. He strongly believes that seniors can find new ways of managing life through the Internet.

There was also a case where family members found love. In 2000, Lee, Jong-taek, (aged 70), felt isolated from his family. But he was able to find their love through the Internet education program. He was very grateful for being able to write e-mails to his grandchildren. In addition, he became a member of SilverCom, an online community for senior citizen, where he made new friends.

In 2001, Oh, Young-jae, (aged 71), spent her days attending several classes, such as American Culture, English Language, and Computer Lessons. She was happy to restart her education, which had been stopped due to the Korean War. She was provided with a used computer from the government institute as part of the program, which allowed her to be able to use computer at home. She even opened a personal web site. Although she was on social security, she was able to lead a healthy and active life.

More substantial outcomes of informatization efforts for senior citizens resulted in the “Senior Citizen IT Volunteer Group.” In May, 2007, Senior Citizen IT Volunteer Group was organized by senior users in order to provide computer education services to other senior non-users. This program was meaningful in providing new opportunities for senior citizens to participate in social and economic activities. The Korea Agency for Digital Opportunity and Promotion (KADO) has been managing the Senior Citizen IT Volunteer Group program since 2005, and planned to provide more substantial informatization efforts for senior citizens.

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education services to 61,500 senior citizens in 2007. This year, a total of 36 groups were organized, with 187 participants. They were expected to provide education services to 4,000 senior non-users at senior citizen centers and community halls. Among them, Jeong, Mun-hwa, (aged 81, Seongbuk-gu, Seoul), expressed his feelings, “It is a pleasure to help other people reach out to the digital world and make friends with many other people.” After retirement, he learned to use the Internet and email, and also received Internet education services, including excel, websites development at the Senior Citizen Welfare Center in Seongbuk for 10 months. After receiving education services to 4,000 senior non-users at senior citizen centers each year, a total of 36 groups were organized, with 187 participants. They were expected to provide education services to 61,500 senior citizens in 2007. This success of the informatization education program mainly depends on how well an individual person performs his knowledge of computers was improved, and he was able to lead a more active life. It is no doubt that computers helped him find a new life.

C. Limitations and Implications

As a result of such extensive government effort, information inequality between genders and occupation each has been reducing. However, the gap between ages, education, each has and income remain. Further, although educational programs and PC distribution programs have contributed to increase Internet access and usage, overall outcomes still lag behind that of other advanced societies such as U.S. and Japan. The success of the informatization education program mainly depends on how well an individual person performs

their capabilities acquired from the program. The government should establish policies for providing the actual know-how as well as providing motivations for the group to not be excluded from the mainstream transition. While Korea has successfully implemented measures for providing knowledge about computers and the Internet, policies have not sufficiently provided the awareness about the significant disadvantage that the people could encounter from not adjusting to the mainstream informatization movement.

It is important to awaken a certain degree of urgency in people’s minds in order to raise the effects of these education campaigns. In other words, social recognition should be promoted, so that if an individual fails to adjust to technological changes, he or she will fully face the disadvantages this will caused, in terms of both their health and financial status. In this regards, the government should establish educational policies that can assist the disadvantaged people to gain social competence and meet their social need. In addition, long-term plans and continuous measures should be taken, rather than expecting substantial results by a short-term based education programs. Further, education programs for the disadvantaged will not be effective unless it is conducted based on different contents and levels of Internet use. In 2004, education programs based on social need of target group were only applied for the seniors. Informatization programs for underprivileged group would be desirable to be extended to other groups such as the disabled people and low income groups. Moreover, effective outcomes of education programs cannot be realized only through efforts of government and individuals, but call for other systematic cooperation including local communities, private corporations, and academic institutions. Also, cultural programs such as films related to informatization can be designed to encourage citizens awareness of the importance of informatization. Last of all, as the overall information inequality is being reduced, informatization policies to address this gap in the future must redesigned to target in a more specific and accurate way.

4. Actions to Spread Informatization in Rural Communities

A. Policy Overview

Information environment for rural communities to adopt new ICT infrastructure has not been well developed in Korea due to a number of factors, including the out-migration of young adults, the aging population, and low income levels. Furthermore, telecommunication service providers have been reluctant to develop information networks in rural areas due to its low demand from the farmers. Despite such disadvantaged conditions, policy efforts to initiate informatization policy in rural areas were regarded as crucial in terms of sharing the benefits of the new ICT and social integration. As a part of the Informatization Culture Promotion Campaign, computer education program was established for rural communities, in order to reduce the geographical gaps of informatization across the country. It was first introduced at the Nokdong Post Office, located in Goheung, Jeonam in April, 1988, with 185 people trained by December of 1989. In March, 1990, it was transferred to the Chinahn Post Office, with 221 people trained by the end of the year. In 1991, a budget of KRW 534 million was spent to expand the program nationally. Each classroom is about 65 m$^2$ in size and is set up with 11 PCs and a printer, OHP, TV, and a VTR at local post offices and public facilities. Both lecture and practice sessions can be conducted. The program is conducted on a monthly basis, and 30 people can participate each month. Each session lasts for two hours daily (40 hours/course), and available courses include application programs O/S,
word process, spreadsheet, PC communication, use of the Internet. The program was very successful and was expanded to other rural areas nationwide. Since it was implemented as part of the President’s election campaign promises in 1992, it has been actively engaged by 136 local districts over two year cycles. However, in 1999, the computer education program for rural communities came to an end after 11 years of active participation, and a new informatization education system was redesigned as follows.

Website development program was first implemented in 1999 in order to promote e-logistics and farmers informatization mindsets through self-managing websites. The main purpose is to build an integrated market systems through encouraging market suppliers to do business directly within their B2B market and providing convenient purchasing environment for the consumers. The main context of this program is to set up websites for agricultural communities, improve supporting systems to better operate and manage websites, provide training to assist farmers websites management skills, support agricultural websites’ commercialization, and support best-managed websites for further development. Additionally, as part of the educational program for agricultural communities, on-site training and professional visitation services were offered to those communities for their newly established websites.

An e-market system for agricultural products has been in operation since 2001, reducing the price for consumers. Meanwhile, innovative e-market support systems were introduced. These include joint delivery of agricultural products and certification systems in support of marketing activities. In the long run, these measures were aimed to establish integrated shopping malls for agricultural products at an independent local level. Furthermore, the expansion of e-market management training, online consultation services, the introduction of a joint delivery system, active marketing and promotional measures, and online consumer feedback systems for quality control were implemented.

Starting from June, 2001, revitalizing of community through the Internet was initiated for the purposes of developing network communication between neighbours, as well as reducing information gaps between rural and more urbanized communities, by using the Internet. Such revitalizing of community through the Internet is an informatization movement where leaders who were advanced in ICT were selected within the community to assist activities of informatization and enhance cooperation among the community members. Projects to revitalize the community were classified into short-term policy actions and long-term policies. Short-term policies focus on providing PCs and websites across all households, donations of PCs for rural communities, promoting information use in daily life including keeping online journals and shopping account records. General policy agenda includes providing ICT education for residents, implementing pilot project to establish information village, building Internet Plaza across rural communities, promoting informatization mindsets among rural residents, direct transactions using online e-markets, promotion of healthy online culture and establishing cyber culture community.

### Korea’s Informatization Policies to Promote ICT Use

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<th>Item</th>
<th>Target group</th>
<th>Program objectives</th>
<th>Education Course</th>
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<tr>
<td>Computer &amp; Internet Application</td>
<td>Beginners &amp; advanced level</td>
<td>Develop basic computer skills</td>
<td>Use of computers and the Internet</td>
</tr>
<tr>
<td>Agricultural Information Application</td>
<td>Beginners &amp; advanced level</td>
<td>Develop skills of agricultural information use</td>
<td>Use of agricultural information</td>
</tr>
<tr>
<td>Agricultural SW Application</td>
<td>Farmers who have completed the basic &amp; advanced courses</td>
<td>Develop agricultural information expertise</td>
<td>Building websites, agricultural SW applications, information analysis</td>
</tr>
<tr>
<td>Agricultural Information 119 Visiting Service</td>
<td>Farmers who have completed the basic &amp; advanced courses</td>
<td>Intensive program focusing on advanced-use</td>
<td>Intensive training through direct training programs, building homepages, PC repairing techniques etc</td>
</tr>
<tr>
<td>Initiating Information Program</td>
<td>Beginners in computers &amp; the Internet</td>
<td>Provide basic education for farmers and increase awareness of informatization</td>
<td>Visiting/group training courses based on community demands (computer &amp; Internet use, agricultural information applications)</td>
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<tr>
<td>On-Bus Education Service</td>
<td>For agricultural communities with poor educational facilities</td>
<td>Diffusion of Internet access and informatization mindsets</td>
<td>Customized matching courses based on applicant’s requirements (computer &amp; Internet use, agricultural information applications)</td>
</tr>
<tr>
<td>Online Education</td>
<td>Communities with Internet connection and farmers excluded from group programs</td>
<td>Provide ICT education service beyond time and location</td>
<td>Basic, intermediate, instructor, and special courses</td>
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A pilot project to promote revitalizing community through the Internet was initiated intending to incorporate the local environment and needs which would enhance the efficiency of rural informatization programs. Due to this project, 15 additional local information centers were established between 1996 and 1997, with a total of 45 local information centers managed to overcome the national information imbalance. The used PC distribution project conducted by the Korea Agency for Digital Opportunity and Promotion began in 1996 when the Ministry of Information and Communication established the “PC Recycle Plan.” In March, 1997, the “Used PC Reuse Plan” was established, following the “PC Recycle Plan.” In April of the same year, ‘Specific Actions Plans for Used PCs’ was established.

In 2001, AFFIS.net, a special portal site for agriculture, was introduced to enhance the quality of life for agricultural communities by providing agricultural information and services.
promoting its application, as well as other information in terms of production, economy, and technology so as to improve agricultural productivity and ensure the full accessibility of information. This portal site provides information regarding agriculture and fisheries, which is both practical and beneficial to the communities. It collected a significant amount of information from a wide variety of sources, and processed it to make it more applicable and comprehensive. Ultimately, it served as a one-stop service for agricultural information, collecting and systematically classifying all available content, and providing information for daily life and culture, including education and medicine, in order to improve a community’s welfare and reduce cultural gaps. In addition, it aims to play a communication channel between rural and urban consumers by providing information about rural environment and agricultural knowledge such as food safety. Further, it promoted an online community integrating rural suppliers and urban consumers. The most significant result from the above rural/agricultural information network is a comprehensive data base for products produced by each farm. This includes systematically classifying each product based on data base for products produced by each farm. This...
by the state government including use of public online services and e-banking let alone sending emails. The old farmer perceives that he still has lot to learn yet strongly believes that this continuous effort will allow him to master the Internet one day. He remarked: ‘Those days, I teach other people how to use computers and the internet, using the five computers at the welfare center. In the future, I would like to set up a website and an e-market service for our community, where our agricultural products can be sold.”

3) Rural Online Community

Due to the success of the “Internet Lounge” as a form of a Local Information Access Center, providing ICT training courses for farmers, awareness and use of the Internet increased in rural communities. As a result, many rural people are able to enjoy the benefits of online communication with their beloved family in urban area. They check their email almost every evening as they visited the Local Information Access Center after work. This is the case of residents living in Kyoungbuk Province and how they used public access points Such Local Information Access Center also plays the role of providing medical related material and information for the public. Meanwhile, it was commonly found that particular groups within a region concentrated on producing one specific products. Local Internet Access Centers and basic e-commerce education were provided targeting these groups specializing in a certain product, so as to facilitate their information sharing and communication. Further, the Local Information Access Center served as a place where children left along at homes could come and do their homework and entertain themselves. Other people gradually were motivated by the Cybertown to use computers in order to manage their farming products and cultivation, where by they could sought Hwang’s help whenever they needed to by sending him e-mails. In 1999, about 20 farmers organized a community in order to learn how to use computers. Since then, their education program has continued. Now, many people in that community know how to use computers. This enthusiasm played a critical role in establishing the computer education center in the district, and setting up the Ivanseong Cybertown. The community established a local culture and a social education center, also known as the “Home of Green Culture,” in 2000, with support from the Ministry of Information and Communication, the City of Jinju, and the Agricultural Federation. It included various facilities, such as an Internet cafe, a library, seminars, and a lecture hall. As a result of such effort, informatization has changed their lives. People check the prices of agricultural products before determining shipping dates, and search for profitable crops and use a computer to keep their accounts and agricultural journals. In the evening after work or on rainy days, the Internet cafe at the “Home of Green Culture” becomes crowded with people. “I seem to become more forgetful as I get older. But I can use a computer to keep everything in order, and compare it with last year’s data. It is not easy to learn how to use computers, but once you know, they can be most useful devices. I would like to keep learning until I die,” said the oldest member of Ivanseong Cybertown. He visits the Internet cafe every evening, and is very enthusiastic about online activities. The “Home of Green Culture” continues to provide computer education for its members, and a computer distribution campaign is

opened to agricultural communities. From the outside, the place has the appearance of a typical agricultural community. However, there are a number of courageous farmers who realized the informatization needs of the community living there. They set up Cybertown, (www.ibs.or.kr), and are leading the way to the future. The Ivanseong Cybertown was created by Hwang, in-chol, aged forty-three. He had bought a computer in the early 1990s and mastered it, and had finally created the Cybertown to promote different applications for various information use.

Informatization Community” were established in 1998 when Internet access was provided to school computer rooms. Up until then, computers had only been used for simple functions, such as word processing. The community set up its own websites with the mutual cooperation of four schools. Teachers developed computer education materials for their students, and further developed their own IT skills to participate in teacher SW contests. The bulletin boards of the school websites were filled with many encouraging messages, posted by teachers and students alike. In addition, the community conducted informatization education for residents, with students volunteering as young assistants for this program. For example, if someone became frustrated with using the mouse, the student volunteers taught them how to do it. The community had already completed the course five times, and those who had taken the course could then set up their own website, linking it with the Baekryeong-do website as a local government official website. By conducting a computer education program for local residents, the school maintains a close relationship with them, and parents’ participation in school education has increased.” Therefore, Baekryeong-do is no longer a remote island, having now become a neighborhood within reach of anywhere, thanks to the dedication of the teachers and the efforts of the community.

The Ivanseong Cybertown in Jinju is also a great example of cyber agricultural communities. From the outside, the place has the appearance of a typical agricultural community. However, there are a number of courageous farmers who realized the informatization needs of the community living there. They set up Cybertown, (www.ibs.or.kr), and are leading the way to the future. The Ivanseong Cybertown was created by Hwang, in-chol, aged forty-three. He had bought a computer in the early 1990s and mastered it, and had finally created the Cybertown to promote different applications for various information use.
on its way. In addition to computer education, it has plans to provide a variety of education programs and information, such as non-agricultural business and life lectures for women.

4) Agricultural Transaction Between Farmers and Consumers Through Online Marketing

There is also a case reported of the creation of an e-market for agricultural products using an Internet website. Mr. Bae starts his day around 5 am by turning on his computer. In 1999, visitors to his website increased dramatically, and it was such a joy for him to check orders on his computer. In 1999, visitors to his website increased dramatically. His products were introduced in both English and Japanese. These days, 70,000 people visit his website daily, and his products are even sold internationally. He emphasized the importance of informatization. “The computer network is not limited to location. E-market is a highly effective system for an agricultural community, which can be a blind spot within the progress of informatization."

There is another fine example in which an agricultural community involved in rose cultivating successfully made its way into the global market through going online. The case of Yiwoo Nongsan provides a good evidence that rural ‘digital divide’ can be overcome despite its remote disadvantage. Yiwoo Nongsan’s flowering procedures are managed automatically by computers. Yiwoo Nongsan uses a software program developed by a big multinational company to effectively manage data and its business operation for productive rose flowering. It is speculated that the total revenue generated by this area is KRW 1.3 billion. The key factor for such success owed to the president of Yiwoo Nongsan entering the Japanese market through online. In order to use computers in his farm management and related work, he decided to learn how to use a computer. Later, he used the Internet to research the Japanese market, in terms of prices, and successfully launched his products in Japan. Through this process, systematic management of product quality, and enhancing consumer credibility increased its total demand significantly. Further, improvement in its brand image optimized the future of his business. He emphasizes the importance of informatization in the agricultural industry. According to him, the internet plays a critical role in developing distribution channels for agricultural products.

There is another fine example in which an agricultural community involved in rose cultivating successfully made its way into the global market through going online. The case of Yiwoo Nongsan provides a good evidence that rural ‘digital divide’ can be overcome despite its remote disadvantage. Yiwoo Nongsan’s flowering procedures are managed automatically by computers. Yiwoo Nongsan uses a software program developed by a big multinational company to effectively manage data and its business operation for productive rose flowering. It is speculated that the total revenue generated by this area is KRW 1.3 billion. The key factor for such success owed to the president of Yiwoo Nongsan entering the Japanese market through online. In order to use computers in his farm management and related work, he decided to learn how to use a computer. Later, he used the Internet to research the Japanese market, in terms of prices, and successfully launched his products in Japan. Through this process, systematic management of product quality, and enhancing consumer credibility increased its total demand significantly. Further, improvement in its brand image optimized the future of his business. He emphasizes the importance of informatization in the agricultural industry. According to him, the internet plays a critical role in developing distribution channels for agricultural products.

C. Limitations and Implications

Nevertheless, limitations and implications for further policy actions remain. In order to effectively link rural online through appropriate IT education programs, focus on the outcomes of programs must be emphasized. That is, to achieve successful outcomes attention must be given towards the farmer’s objectives and needs rather than IT instructors and computer equipments. Further, such IT educational curriculum must be consumer-oriented taking into account the famer users’ capabilities and needs. Additionally, in order to improve the efficiency of agricultural informatization education, coordination of cooperation and division of task must be managed between the informatization initiative institutes and educational bodies. Central IT education system, due to its systematic education curriculum and management, allows programs to be delivered to massive recipients within short period. However, limitations remain whereby not enough consideration has been given towards the recipients’ diverse levels and needs. Further, many difficulties are encountered to match the need of different local work conditions and IT circumstances, and to provide consistent supervision and education. Additionally, there is an insufficient amount of agricultural software for field management that can be used in the education process. As for visiting services to assist ICT learning, the outcomes were most effective and outstanding. This was due to being conducted in the field, incorporating the local circumstance in a more practical way. Follow-up management and supervisions are provided through the phone. In particular, strong partnership between related universities and rural communities is to be notices. Nevertheless, obstacles to provide efficient field-based software training due to technology-based educational curriculum, and lack of interactive consulting services remain as limitations within the agricultural informatization programs.

It is also pointed out that education programs for website management remain limited in terms of its short-term courses and its application to practical use. Therefore, it is necessary to customize the current educational programs for users’ needs, such as the application of video, html, and photoshop software. Furthermore, diversifying the content and level of IT training programs is crucial to match the demand of diverse levels of IT using standards. The maintenance service for existing websites is not performed up to the level of user expectations, due to the insufficiency in human resources and the low participation rate of
In order to improve the reliability of an e-market, it is also urgent for a certification system to be introduced in order to secure effective information sharing. Furthermore, it is necessary to develop the properties of the content, as well as the development of the continuous update system in accordance with the proper. In this term, it is necessary to establish a proper update measure, the Used PC Recycling Plan was developed in March, 1997, and its detailed implementation plan was established in April.

Involving the regional telecommunication and post offices and the Educational Broadcasting System, and carrying out ‘Love PC Project’, the Used PC Distribution Program became systemized in 1998, and was expanded in 1999 as a consortium among Korea Agency for Digital Opportunity and Promotion. The Korea Rehabilitation Association and Dacom Co., Ltd. was established: the Korea Agency for Digital Opportunity and Promotion was in charge of collecting and repairing used computers; the Korea Rehabilitation Association took charge in identifying needy people and providing computer applications as well as education programs; the Dacom provided modems, educational materials, and free internet access coupons. In 2001, the PC Donation Promotion Event was held to

5. Information Access Center & PC Distribution

A. Policy Overview

The dramatic advancement in informatization based on existing infrastructure such as telephone networks and the government’s PC distribution policy (one PC for one person) have brought about extensive changes in Korea. However, disadvantaged groups, including low income families and the disabled, still have difficulties in participating in the information society. The digital gap between these groups and the rest of the population cannot be solved without active support of the government and of local communities.

The information accessibility of the disadvantaged groups can be improved in two ways: either directly providing them with information communication devices or supporting organizations that provide them with necessary facilities and contents. In this regard, the Used PC Distribution Program was initiated in 1996, aiming at providing PCs to the low-income, marginalized groups. As the program distributed used PCs repaired by technicians, it also enabled the government to reduce its program implementation cost and to protect the environment. The Information Access Centers, providing many people with access to information, can improve the efficiency of the government’s budget execution. They were established in local regions with no or few information facilities. Local public offices and libraries where local residents could easily access were provided with devices and educational contents necessary to use the Internet.

The Information Access Center was established between 1996 and 1997, making a total of 45 local Information Access Centers nationwide. Such local Information Access Centers were evolved into multi-functional Information Access Centers from 1998. In addition, Information Access Centers exclusively for disadvantaged groups were established from 2000. These facilities were placed in local government offices, local welfare centers, and public libraries, providing internet access free of charge to local residents living in poor information access environment. Since 2006, many programs have been carried out aiming to further facilitate the use of these facilities.

Meanwhile, the Used PC Distribution Program was initiated in 1996 when the Ministry of Information and Communication(MIC) set up PC Recycling Plan. As a follow-up measure, the Used PC Recycling Plan was developed in

website administration education. Further, limitations can be identified in terms of offline communities advertising and promoting citizen’s online community activities.Via web bulletin boards, emails and SMS messages. In this case, further participation inequality can be caused considering that those who are already linked online will have the opportunity to access such information notice, whereas those who access will be further excluded. As is clearly indicated above, there are many issues that need to be addressed, such as a lack of diversified activities, including nationwide meetings or conferences on a regular basis for sharing information, and online events. In order to manage communities more effectively, it is necessary to have high skilled expertise. For example, a member remarks: ‘Farmers must have complete knowledge to be able to set up and manage their own websites. Although Ministry of Agriculture and Forestry (MAF) is supporting farmers’ website management somewhat passive attitude to attain the program is evidenced. This implies that programs must focus more on the relevance of the program for the farmers’ actual need and reconsider the incentives that will influence farmers’ interest towards using new ICT and informatization.

Finally, there are many issues that need to be resolved in order to use the information provided by agricultural portal sites, to enhance the competitiveness of the agricultural industry - the ultimate goal for the communities. Most importantly, content updates are seldom performed properly. In this term, it is necessary to establish a continuous update system in accordance with the properties of the content, as well as the development of the information resources and cooperation with corporations, in order to secure effective information sharing. Further, it is also urgent for a certification system to be introduced in order to improve the reliability of an e-market.
increase people’s participation in the program. In 2002, 16 local authorities implementing the Used PC Distribution Program were subsidized and 6 PC service centers were established outside Seoul to provide maintenance service nationwide. In 2003, it began fundraising through an online donation system in cooperation with LG-IBM to purchase and distribute new PCs along with used ones. In 2004, the regional telecommunication and post offices took charge of distributing used PCs instead of a variety of local governments and public authorities. On the other hand, PC distribution through NGOs and companies was more enhanced: 17 NGOs were selected as PC distribution organizations and tax exemption was given to companies donating PCs.

B. Successful Cases

1) Informatization of the Disabled through the Used PC Distribution Program

The Love PC distribution center, an organization in charge of the Used PC Distribution Program, have been collecting, repairing and distributing used computers to those in need. Lee Bum-hee, in charge of this organization, is a disabled person himself. The lower half of his body was paralyzed due to a car accident. Yet, he is working as a computer sales man as well as serviceman, and providing computer education free of charge. In 2002, he delivered a donated computer to a disabled child for the first time. It gives me immense pleasure whenever I can make decent computers out of used ones.”

2) The Love PC Project

Since 1997, the Ministry of Information & Communication (MIC) and the Korea Agency for Digital Opportunity and Promotion (KADO) have carried out the ‘Love PC Project’ for people marginalized in informatization. It was one of various projects under the Used PC Distribution Program, appointed him as one of computer servicemen participating in its project. His job is to repair computers donated from public offices and individuals. He said, “It feels great to help other people by repairing donated computers. I would like to thank those who donated their computers to less fortunate people. It gives me immense pleasure whenever I can make decent computers out of used ones.”

The most valuable impact is that disadvantaged people are encouraged to restart their lives and provided with a minimum means to participate in economic activities through this Project. For example, in 2000, the Seoul Blind People Center started computer trainings with 20 used computers donated by this Project. One of the participants, Kang Chun-seok, emphasized that computers provide great opportunities for the blind to communicate with the outside world. Also, the Seoul Disabled Veteran Welfare Center provides computer trainings using donated PCs to the members of the Korea Disabled Veterans Organization. The organization has 25,000 Members and most of them are over 70 years old. They are proud patriots of the country. Yet, because of their old age and disability, they have been neglected in sharing the benefit of informatization. In addition, the Korea Rehabilitation Agency provided children with computer trainings using donated computers, in order to prepare them for further education and work.

In addition, a disabled person who got a computer through the project could research job information and prepare applications. The children from poor families also could use the computer for job searching and further education. Ji-young was a second-grade middle school student living with her grandmother in a small room. Unable to afford a computer, she could not share online peer culture like email exchange or chatting other young students are enjoying. In 2001, she received a computer through this project, and has been actively participating in cyber activities. Another successful case is Sung-min and his sister. They are both mentally retarded, and living with a single mother. Their lives, simply composed of schooling, playing at mom’s workplace, and staying home, could have more dimensions, enabling them to gain new experiences.

Yang Seung-pung, suffering from cerebral paralysis, could change his life with a computer donated by the project. While his colleagues working in the Self-Rehabilitation Center, he used to be left alone, as it was too difficult for him to move. However, learning a computer made him have a strong will to overcome his disabilities. He said ‘I’m so happy because I can do meaningful things with my computer. Before I get a computer, I had to spend all day doing nothing but lying, feeling useless and hopeless’. Oh Young-jae, an elderly pensioner is also experiencing a new life, receiving a computer. Although she is old and living on a meager subsidy, she is eager to learn and attending computer classes 5 days a week.

Every organization and individual participated in the Love PC Project pointed out that it made them realize the value of sharing and that even a small contribution could change society for the better.
The Bucheon Community Welfare Center was established in 1998 when the Asian financial crisis hit the country. Gathering local NGOs, it initiated a Used PC Distribution Project as a way to resolve the unemployment problem in Bucheon region. The project was carried out as part of the Used PC Distribution Program. The objectives of the project are:

1) to protect the environment by recycling used PCs,
2) to create jobs in computer disposal, repair and manufacture,
3) to bridge the digital divide by distributing used PCs to low-income families.

Korea Dow coming donated its old PCs after it changed the confiscation status got confirmed later. The prosecutors said the confiscated computers could be purchased and reused by gambling houses, if they were sold in public sales. Thus, they decided to donate them to the Love PC Project.

4) Public Information Access Centers

Nowadays, it takes more than desks and chairs to make an efficient studying room. Accordingly, some of normal studying rooms were equipped with the Internet access. They were called the Internet studying room and provided students in poor areas with more practical and effective educational environment.

In Jungwhon-gu, Seonam where many low-income families live, many schools are unable to provide other than basic educational facilities. “People’s Servants,” a social welfare organization, established the “Jungdong Internet Studying Room for Juveniles,” providing a variety of educational equipments and services, including computers, printers, digital cameras, and scanners. When it was a normal studying room, only few students used them. Yet, currently, this upgraded studying room has been extensively utilized by students, and the number of visitors has been increasing dramatically.

The Jungdong Internet Studying Room for Juveniles is open to everyone. Jihee is a 6th grade elementary school student, living with her father and sister. As her father lost his job, she couldn’t ask him to buy her a computer. However, the studying room enabled her to access computers. Minhyeon is also in the same situation. She is living with her grandparents and can not afford a computer. At the studying room, she can access the Internet, search information and enjoy games. The studying room also provides ICT training for students like her free of charge.

Another example is the Wonchon Internet Studying Room. Previously it was a normal studying room established within the Banpo Social Welfare Center. In 2000, it was equipped with the Internet access as well as other facilities such as a VTR, and a lounge. The manager said, “Whenever you have any questions while reading, you can search for answers on the internet. As we do not have many books, unlike other libraries, we provide this service so people can search for whatever they need on the internet.”

5) Information Access Centers for Foreigners

The number of foreigners living in Korea has been increasing dramatically due to increase in international marriages and foreign workers. Accordingly, the government established various assistance programs for these people. The provision of Information Access Centers (IACs) and educational programs are part of the assistance program.

For immigrant wives, local Information Access Centers are not only the place where they can learn Korean and a computer, but also the place where they can experience Korean culture and make Korean friends. They tend to have difficulties in fitting into Korean society because of language and cultural barriers along with social discrimination toward them. The local IACs support them to live as ordinary Koreans by providing necessary education.

In 2007, 20 immigrant wives from the Philippines, Vietnam, Japan, and China are living in Gigae-myun, Pohang. Among them, 13 people have attended language and computer classes at the local IAC. Nori is an immigrant wife from Philippines. She attended a computer class at the local ICA every Wednesday. She did not understand Korean very well. Yet, she said “Although I am not good at Korean yet, the teacher is very kind to me.” The computer

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Ahn Young-Seon, emphasized the importance of computer education for immigrant wives. “Computer education not only helps them use computers, but also provides opportunities for them to learn Korean and make new friends.”

Meanwhile, at the Bucheon Center for Foreign Workers, The MIC provided computers and the Internet access to improve the lives of foreign workers in Korea and to let them have a good image of Korea. The MIC selected five regions including Bucheon, Gumi, Changwon, and Wanju, in accordance with their population levels. The Korean version of OS previously installed in computers was all changed with the English version. The computers also support the use of other languages along with Korean.

Ashik is a foreign worker from Nepal. He is actively using the IACs and attending a 6 month web design course. He majored in economics, yet was interested in computers. In Nepal, he found only 3 educational institutes offering computer related courses. He learned DOS in Nepal. Yet, after coming to Korea, he could learn not only basic skills necessary to use the Internet, but also more advanced skills such as HTML and Photoshop. He said, “Many foreign workers come here to check their country’s websites, to read the news, and also to send emails to their families. One of users even asked whether the IAC can install AutoCAD on the computers. Some of them are even considering starting an Internet cafe exclusively for their fellow countrymen in Korea, as it is still difficult for foreigners to visit and use the Internet cafe ordinary Koreans are using.

6) The Multi-Functional Information Access Centers

The Multi-Functional Information Access Centers provide opportunities for them to learn Korean and make new friends.

C. Limitations and Implications

1) The PC Distribution Program

The PC Distribution Program aims to give more digital opportunities to people not sharing the benefits of information society due to various barriers by providing PCs free of charge. In particular, by collecting, repairing and distributing used PCs, it allows the government to implement “one PC per one person” policy and to protect the environment.

However, problems arise when the level of beneficiaries’ expectation for distributed computers is too high. Since most of the used computers are out-dated and have low specifications level, it is difficult to provide an optimum environment to use the Internet and other applications. Some of beneficiaries complain about the lack of peripheral devices, and some request new PCs to replace old ones.

In addition, its implementation process can cause more difficult problems. Although the organizations in charge of the program try to distribute PCs fairly and transparently, some people abuse the distribution system: taking more than one computer and selling a computer that they received. Also, although its beneficiaries need some proper ICT trainings to use the PCs they received, in some cases, no or poor education is provided.

In the PC Distribution Program, the level of beneficiaries’ satisfaction appears higher when computers are
distributed to people who really need them. For instance, many of disabled people have begun to use computers for the first time through this program, and received further assistance through the subsequent educational services. In other words, if appropriate beneficiaries are provided with PCs and receive proper ICT trainings, their information accessibility can be increased along with their level of satisfaction. Therefore, it is important to identify practical target groups for the programs: people who do not require high-performance computers and can happily accept the used computers. It is also crucial to enhance the transparency and accountability of the distribution process to increase the level of satisfaction. In addition, it is necessary to collect usable PCs with reasonable specification level, as the price of PCs keeps declining thanks to fast technological development.

2) Information Access Center Project
While the Used PC Distribution Program aims to improve an individual’s information accessibility, the objective of the Information Access Center (IAC) Project is to increase the information accessibility of the mass public. The IAC aims to improve information accessibility of marginalized population including people living in rural communities, senior citizens, disabled people, and low-income families by providing public access to ICT services.

The IAC project has several problems. Firstly, as it has been carried out by a variety of ministries for a long time, there are only few regions left that require the establishment of a new IAC. Secondly, the existing IACs have operational problems such as management and maintenance of facilities. In order to solve such problems and enhance project effectiveness and efficiency, it is required for ministries to coordinate and consolidate their IAC projects. By doing so, multi-functional IACs which can perform a different function required by each ministry can be developed, while reducing investment overlap. In addition, Providing ICT trainings, multi-functional IACs can be utilized as the practical center of national ICT education for people. Thirdly, the IACs need to be upgraded to cope with changes in user demand caused by technical and social development, and to improve user satisfaction by reflecting the result of project performance analysis. In other words, the IAC project should focus on capacity building of disadvantaged population in stead of building a public access to ICT service. Such approach also can motivate disadvantaged population to learn and use ICTs and become a member of information society.

In order to achieve these objectives, it should be avoided to build unnecessary IACs. Instead, the focus should be given to continuous maintenance and upgrading of existing facilities. Some facilities are in poor condition to meet the user demand. Some are lack of heating and equipped with excessively low quality of devices. Some are also lack of administrative personnel to maintain the equipments. Therefore, the project direction should be changed from building new IACs to upgrading existing ones.

It is also recommended that the various educational programs implemented by several ministries using local information access centers be integrated. Obtaining skills and knowledge, the participants of the educational programs should be able to get more income generation opportunities. In other words, it is important to develop educational programs that enable participants not only to learn ICT skills and knowledge, but also to use them to gain economic profits or participate in information society.

In addition, it will maximize the effect of educational programs if an individual beneficiary is allowed to set his/her own goal, and local IACs support him/her to apply what he/she learned to increase his/her income. One example can be to assist a trainee in finding an appropriate part-time job or starting e-business. Meanwhile, the government can use such economic benefits trainees obtain as project performance indicators instead of the simple number of educational program participants, to evaluate the real performance of the project.

6. Information Ethics Program
A. Policy Overview
As the Internet becomes more and more integrated in everyday life, the negative side effects of the internet, such as internet addiction, hacking, spamming, and the infringement of privacy, have become important issues to be addressed. This issue is not only an individual concern but also a social problem that poses a threat to our information system. In response to these kinds of negative impacts, the government has implemented measures for their prevention, and promoted a healthy internet culture. As for regulatory measures, information communication ethics have been promoted in the education field.

As a result, the government has implemented various activities to promote informatization of everyday life in terms of sound information ethics programs, and the prevention of negative effects. In addition, many corporations participate in these kinds of activities as part of their social contributions. The Korea Agency for Digital Opportunity and Promotion established information ethics programs in February, 2001, and organized a TFT (Task Force Team) to allocate government budget for the program, after recognizing the seriousness of the negative effect of informatization. In order to address such problem of negative impacts, the importance of information ethics education was emphasized whereby in August, 2001, education textbooks outlining information communication ethics were developed for teachers, public and private officials,
two observatory rooms, and an office. Currently, it offers individual counseling rooms, one group counseling room, and an Addiction Prevention Center was established, with two observation rooms. The program’s textbook is named “Clean Information World with Teachers,” and it includes such subjects as the basic principles of cyber ethics, the characteristics of the young generation's culture, and various negative effects of informatization. This textbook can be used in schools and other academic institutions, as it presents a variety of information ethics activities and contents that can be applied within the school system. Its contents include an overview of information communication ethics, cyber culture, Internet addiction, teaching methodology of information communication ethics, and best cases of information ethics education. Between November 2001 and 2006, 906 teachers have completed this course. At a teacher's training course during summer 2005, the negative effects of new media, such as mobile phones, were added, with a more strengthening practical educational approach. In addition, for the purposes of increasing the participation of teachers, information ethics course was added within the contents of online e-Study (www.estudy.or.kr) portal, since 2002. As the importance of educating young generation of information ethics increased across the society, information ethics education program which had been provided to teachers and parents since 2002, extended its coverage to young participants. In addition, special training course for school teachers about information communication ethics education has been operational since 2005. In April, 2002, for the first time in Korea, the Internet Addiction Prevention Center was established, with two individual counseling rooms, one group counselling room, two observatory rooms, and an office. Currently, it offers group and individual therapy for Internet addicts, and family consultation services free of charge. The center is open from Monday to Friday, (09:00 - 18:00), and Saturday, (09:00 - 17:00). It handles psychological and emotional issues regarding the excessive use of the Internet, including games, chatting, search, pornography, and other negative effects of Internet use. Anyone can request for the public free-of-charge service through various ways including online consulting, phone calls or face-to-face visits to the Center. It also promotes awareness from parents and teachers to deal with Internet addiction, and offers special lectures across schools. Meanwhile, the center also publishes educational materials, including “Therapeutic Strategies for Internet Addiction,” and provides training programs to develop experts on Internet addiction. Since 2002, the course has offered a certification for those who have completed 40 hours of the training program to become information ethics instructors. This program continues to remain very active in 2007, with demand from schools and individual addict clients continuously increasing.

In 2003, the Cyber Crime Prevention Program was established to reduce the increasing number of cyber crimes. The program developed online content based on 10 types of cyber crime prevention guides, using flash animation to visually appeal to younger audiences, which was distributed to schools via the Internet. This program informs students about the types of cyber crimes and related laws and regulations. The Cyber Crime Prevention Program will be further developed and updated with more up-to-date cases, using a more practical approach. Currently, the program focuses on the promotion of a sound information culture supported by the cyber crime prevention groups such as regulating such negative activities. Further examples will be presented below.
online, such as signing up for an e-Clean Reader Mailing Service, and advertising campaign activities to inform large number of students. Several offline activities were also conducted, including discussions of effective reporting systems for illegal emails and other cyber crimes, and the composition of essays after viewing cyber crime prevention flash animations. Further, assessment course after auditing videos such as online game addiction was conducted to rethink about the problems with the students. 

Regarding these activities, Mr. Han said, “Many students now recognize that some of their own actions can be considered cyber crimes, realizing equal responsibility and morality in the behavior in cyber space. This has had a tremendous impact on our educational values, with students reporting cyber crimes and writing essays on the subject.” Meanwhile, one student voiced his opinion about the group’s activities: “Through this occasion I have learnt the problematic consequences and importance of controlling online game activities.” These kind of prevention activities held in schools with teachers and students actively participating is highly recommended to promote sound Internet culture.

2) Korea Cyber Monitoring Association

The Korea Cyber Monitoring Association (www.cap.or.kr) was established in 1999 by the ‘Korea e-Commerce Association’ regarding online games and Internet addiction. The association was formed to serve as an online damage reporting center against the infringement of private information, hacking, viruses, cyber sexual harassment, and other malicious activities. The organization coordinated with applicable judicial institutes and government committees for illegal or indecent materials. Additionally, online coordination activities were actively performed among private organizations and communities, to ensure a clean cyber environment, along with various campaigns and educational activities. The Korea Cyber Monitoring Association’s activities were made possible by six full-time volunteers, with the support of 1,500 netizens. Monitoring staff were recruited among volunteers, and the spam prevention campaign resulted in huge success, due to the unprecedented support of the netizen community. Last April and May, regular chatting sites were monitored by 1,500 volunteers from the general public.

“Because the Internet has a beneficial aspect to be able to communicate and interact more freely beyond time and space, its users strongly oppose any kind of restriction to freedoms. For example, online communities, such as chat rooms, internet cafes, and messenger, are based on interactive communications where the sense of freedom is regarded as significantly important. Therefore, any control or regulatory measures imposed by a judicial organization or government body causes a sense of antagonism. Accordingly, it is very important to encourage autonomous regulatory activities.” The chairman of the association is confident that the private monitoring organization will be more effective against cyber crime and other negative effects of the internet than government bodies. In this regards, the Korea Cyber Monitoring Association coordinates with other organizations to address cyber crimes and its prevention. The Internet is so vast that it cannot be guarded by one single organization.

3) Campaign for Informatization Ethics

Computer instructors recognized the necessity to organize campaigns against internet addiction. As a result, in 2006, the teachers applied to try ‘a day without the Internet’ as a weekly campaign in their school. As a part of the campaign, a special anti-internet addiction session was conducted across three sessions. The Self Diagnostic Test was implemented to conduct surveys among students. As a result, seven percent of the students were found to have been exposed to high levels, and potential risks, of internet addiction. Most of the students had not realized the lengthy time they were spending in front of the Internet, and many were stunned by the test results. A mind training session was arranged for twelve students who showed symptoms of addiction to internet pornography. A mere session of a few hours may not be able to change these students’ behavior completely, but it was a great opportunity for them to recognize their own situations.

An action group to advertise the campaign was also formed. The students named the group as the “Net.” The “Net” students initiated outdoor activities such as hiking with students who were highly exposed to Internet addiction. Also, the “Net” designed campaign materials and prepared an exhibition in recess rooms. They also made a 3-minute promotional video to help students understand the concept of the internet off-day, and urged them to use the off-day calendar. ‘While making the promotional poster and video, I realized the seriousness of internet addiction. So, I decided to try my best to help prevent addiction,” said a first grade student. All the students were asked to select a day which they will not use the Internet, and plan their daily schedule and make a check list to assess their activities. Although students confessed that rechecking their daily activities was a burden and difficult to do, ‘it still helped us to reassess ourselves, and rethink about our relationship to the Internet’. Obviously, this program helped a certain number of students, and parents paid more attention to

Counseling for an Internet addicted student.
activities were developed for the students. After then, a group consultation session was conducted regarding internet usage control. It was an opportunity for the students to understand their friends and family better. On the third day of the Internet Rest Camp, after four group sessions, they appeared more insightful about their actions, and made plans for the future. It was decided that if they had more friends at home, they would not become so addicted to computer games. Some children sent text messages that read, “I did not play any computer games yesterday. I did not feel like it.”

4) The Counseling Program for Internet Addiction
More realistic outcomes are elaborated through students’ experiences of change by receiving help from the Internet Addiction Counseling Center including individual, group and telephone counseling service.

“I would like to thank my friends and the people around me for their support. When I first participated in this program, I was a little nervous and shy. But soon, I became close with the other members and developed friendships. I was also able to learn a lot about the internet. Now that I am aware of the importance of controlling my internet usage, I am able to self-control and spend less time using the internet. I hope many others can benefit from this program. As for myself, I will keep trying to control myself and invest more time for my future after completing this program. It has been a great experience for me and I would like to thank my teachers.”

“I started participating in this program as recommended by my teacher, without much enthusiasm. It was a great experience for me to express my feelings comfortably. I realized that I spent too much time on the internet. Now I am confident that I can spend less time using computers. I began thinking about the consequences of my actions, and the negative side effects of spending too much time at a computer. I was able to speak to many people and became friends with them. I started thinking about my future and dreams. I realized that I had changed a lot after participating in this program. Now I have different feelings when I use a computer. I decided to spend more time trying to achieve my goals and looking back on my actions. I am very grateful for this opportunity, and look forward to sharing my experience with other people.”

C. Limitations and Implications
Although government agencies and relevant institutions including youth centers, civil groups, local education departments are putting enormous effort to address the problems of Internet misuse, a more systematic integration among separate bodies is required to better resolve the problem. In general, a number of Internet addiction prevention programs are being developed independently by organizations to protect children from the negative impacts of informatization. These include information communication education, beneficial content development, and counseling. However, there remain difficulties in establishing well-organized systems and expert education, due to a lack of organic coordination between the organizations. Additionally, a mutual cooperative system has not been properly set up to facilitate the exchange of information. Continuous long-term policies are unavailable.

Although the government has succeeded in its informatization through rapid Internet diffusion in the society, insufficient consideration has been given to the quality of information use. This can be interpreted as citizens’ passive Internet adoption rather than actively taking up the Internet with critical thinking of making beneficial use of the Internet to solve their social problems. Therefore, another level of information policy to reconsider the meaning of Internet use within the context of social development is required. Insufficient focus on information ethics education remains problematic within the educational curriculum for young generation. Korea’s education system emphasizes entrance examinations for universities and an over-loaded curriculum. There are very few cases where information ethics are taught in line with the other education programs, and only recently has the new educational curriculum touched the issues of information ethics. In this regards, the special information communication ethics program that was conducted in 2004 among elementary, middle, and high school students contributed to the recognition of information ethics. However, special programs conducted occasionally, without links with other regular education programs, are not enough to constitute fully practical measures. As a consequence, more substantial political concern and support are required in order to establish a proper education system regarding information ethics. This information ethics education must be practical, and it should be applied to daily life. Additionally, as the average age of information users falls, education programs targeting children of ages as young as six and seven must be made available. Information ethics should not be treated as an accessory by policy makers and educators. As information technology is used more frequently in our daily life, it is necessary to establish an effective education system, in terms of information ethics, as a core component of the regular curriculum at every stage of education.

Until now, structural and systematic approaches on the negative effects of informatization have been used without sufficient emphasis on its ethical and cultural aspects. As a result, in order to address the quality of the ‘digital divide’ occurring in society as Internet culture is penetrating deeply in everyday life and to promote a sound information culture, not only technology and regulatory policy actions but also recognition of ‘information ethics’ among users must be firmly established.
Conclusion

Korea Agency for Digital Opportunity & Promotion
III. Conclusion

Informatization culture in South Korea has developed and spread in a remarkably successful way to create new channels of social development. Immense number of citizens in everyday life are going online enjoying the advantages of ICT and information use. Such achievement has been more outstanding in terms of nation’s effort to accommodate the disadvantaged groups, who are easily neglected, within the cultural transition. As online transition has been spreading rapidly across the mainstream society, important attention has been given to address the ‘digital divide’ and to assist the information disadvantaged with opportunities, capabilities, and accessibilities not to miss out the potential benefits. Based on such policy actions to promote informatization culture, many successful cases have been found at individual and community level.

National campaigns to encourage informatization culture were actively promoted with beneficial outcomes of individuals solving their social problems, family integration, new youth culture, community network, and online public participation. Informatization education programs were actively implemented to all segments of society in order to empower the citizens to be able to make use of ICT applications. Actions to overcome substantial inequality among specific groups were conducted in which many women, the disabled and seniors were able to overcome their social marginalization and difficulties. Commitment to link rural community online was initiated in areas of IT education, local information access centers and connecting farmers to e-business network. This provided new ways of improving quality of life among farmers. Programs to provide Information Centers and computer equipments were provided increasing citizens’ opportunities to access ICT. Lastly, and most recently, information ethics programs to prevent negative effects of online activities including Internet addiction and cyber crimes were initiated helping citizens, in particular, young users, to manage the quality of information culture.

This report presents realistic illustrations of how practical movement was initiated by the government, how actions were implemented, and how individuals and communities experienced such policy provision and perceived outcomes. Consequently, micro-level observation of how policies to encourage disadvantaged groups to adopt informatization culture to improve their social well-being will provide good case models for developing countries intending to share benefits of information culture in society.

![Conclusion](https://www.KADO.or.kr)