Latest Report on Digital and IT Conditions in North Korea

\<PART2\> Personal use of increasingly available computers and IT devices

(by ISHIMARU Jiro and Lee Jin-su)

Misconceptions about computers

Except for some residents in cities, computers are far from the everyday lives of the regular citizen. Quite a few North Koreans hold misconceptions that computers are "versatile machines that can turn the impossible into the possible." The following is an example from the editor. During continuing interviews with North Korean citizens who cross the border into China, the subjects often grudgingly consent to having their photos taken. Most do not allow their faces to be photographed, but insist the photo be taken from the chest down, or be taken from behind. Some only allow their voices to be recorded. In these cases, they sometimes ask, "If my picture is taken from behind, can't a computer be used to figure out my face?" or, "If my voice is recorded, can't a computer be used to figure out what my face looks like?" In addition, with respect to the Chinese mobile phones that are smuggled into North Korea they usually request, "Make your call very short. Otherwise the information division of the state security department will use a computer to eavesdrop on the mobile phone signal, and will be able to figure out who is making the call and from where."

Many people have these beliefs. As a result of the ruling regime's conscious efforts to keep citizens unenlightened, the poorest residents of the cities and the famers and citizens living in mountainous rural areas are uninformed and speak of computers with a reverent awe. The authorities profit from this ignorance. The citizens assume that North Korea has advanced computers, and that the regime is able to know everything about its citizens.

Private use is limited

The use of personal computers among city business people with some savings has increased since 2005. There are strict regulations regarding ownership, but it is legal for individuals to own computers. While computers are allowed, there is absolutely no Internet access. The electricity supply is sporadic, and there are often power outages. Despite this situation, as with mobile phones, most of our Rimjin-gang reporters have personal computers at home. But it

The image is from the state-owned media and appears to show a computer class at the Kim Gi-seong 1st middle school in, Hoeryong, North Hamkyung Province. (Source: Pictorial Magazine *Tungdae*(Lighthouse), Issue 336. December 2009)

The image shows a diagram from inside the networking planning department. It is labeled "the Computer Network Diagram of Scientific and Technical Intelligential Station of North Hamkyung Province." The picture was taken in May of 2005, suggesting an electronic network was already available at this time. (Chongjin, by Lee Jun) (C)ASIAPRESS

does not seem that they are able to use the computers to their full extent. When asked what he uses it for, Gu Gwang-ho responded as follows:

"Honestly, there is not a lot we can do with the computer at home. The neighborhood children sometimes get together to play games, or watch TV shows or movies on VCDs or DVDs. Despite that, North Koreans think of computers as a good asset to own, like a TV, refrigerator, washing machine or something similar."

Choi Gyon-ok, who is intensively studying computers, made the following comments. "As you would expect, it is the affluent who own computers. The people who buy computers are top officials, judges and of course wealthy business people. I often hear computers are bought to educate their children. For the ordinary citizen, buying a computer is just a dream."

Schools are starting to hold computer classes. The state-run media often reports that in addition to Kim Il-sung University and other higher educational facilities, secondary schools are also proactively introducing computers.

Kim Dong-cheol reports that "some

middle schools in regional cities have a few older computers, but that is it." It is possible that in order avoid the impression that North Korea is falling behind the rest of the world, the media report these stories to keep up appearances.

The government proactively uses computers. In Pyongyang in 1990, the North Korean Computer Center was established. At the center, original software and hardware were developed, and it became the focal point for training personnel. In addition, information about citizens has been digitized, and computers are used to manage and view the information. In 2005, we met a North Korean man in China who had been a reporter for a regional party newspaper before defecting from North Korea. He mentioned that the publisher and printer of the paper already exchanged electronic copies of the draft through email. Although the network within North Korea is closed off to the outside world, the use of an electronic network started from a surprising early period. It is suspected that while the Kim Jong-il regime maintained a strict isolationist policy, it recognized the danger of falling behind the rising trend of digitization.

On a related note, an acquaintance of the Rimjin-gang editor in chief, a man who works in Japan for a North Korean trading company, said that by no later than 2006 he was exchanging emails with a relative of his who was a returnee living in Pyongyang. This seems to indicate that organizations related to public safety or trade organizations with international operations have at least some restricted access to the Internet.

Windows is the operating system and the hardware is Chinese

Although North Korea is developing its own OS called "Red Star," it appears that Microsoft Windows is being used almost exclusively within the country. Our reporters inside the country verify that when normal administrative offices, institutions and organizations create documents, Windows and Microsoft Office are used. The mobile phone application form our editor obtained of was created with Microsoft Word, and a regional hospital database of employees our reporters also obtained was created with Microsoft Access.

The computers being sold within the country are imported from China. Choi Gyon-ok explains how individuals go about buying a computer:

"Within Hyesan, there are specialized computer stores, run by computer import specialists. Computers are also sold at state-run department stores and, to a lesser degree, at large-scale commercial stores. Most computers are imported from China to Pyongyang before being sent to Hyesan. However, as they are expensive, not many people buy them. In most cases, people buy computers from individuals who have smuggled them from China. These individuals are knowledgeable about computers, can do repairs and offer good service."

This information was from Hyesan, a city close to the Chinese border. Gu Gwang-ho explains how individuals purchase computers in Pyongyang:

"There are computer wholesalers in Seosong district, and they are also sold in the large *jangmadang* (public markets). The computers are not sold openly, but instead the sellers there carry signs with 'computer' written on them. Customers are taken to a warehouse where the computers are kept, are shown the computers and buy them there. Prices vary, ranging from 200 US dollars for used computers up to 1,000 dollars for new notebooks with LCD screens. In addition to the Chinese computers, there are also South Korean models such as Samsung and LG."

The computers officially imported from China are covered by regulations that restrict their sale to special stores that exclusively deal with Chinese goods and through state-run department stores. Sales though individuals are not allowed. However, computers are increasingly being sold by trading companies or individual travelers who have picked them up in China. Normally, it is forbidden to sell South Korean goods in marketplaces, yet computers seem to be an exception.

It is legal to sell computer-related and peripheral items to individuals. Items such as USB memory sticks and SD memory cards are easy to purchase. Prices are slightly higher than Chinese market prices. There are strict regulations regarding the ownership of copy machines and printers, but this will be discussed later.

It is impossible to know the market penetration of computers among individuals, as no data are currently available on the subject. However, if we were to guess based on the impression we received when gathering information on the subject, considering they were made available before mobile phones, we would estimate ownership numbers to be slightly higher than those for mobile phones. Mobile phones are clearly useful to individuals as they can be used for

communication and are helpful for doing business. In contrast, without Internet connection, the usefulness of computers for individuals is limited. Given the high price of computers relative to the cost of living, their rapid proliferation is not likely in the near future.

Computer ownership requires registration

Computers owned by individuals must be registered with the appropriate administration office. Gu Gwang-ho spoke with us about the registration requirements:

"Computers must be carried directly to the Public Security Office (police station). After the owner's name and address and the computer model are declared, the computer is turned on and its contents are inspected. If South Korean software is found, it is deleted. Computers sold in North Korea use Microsoft Windows, but South Korean versions of that software are not acceptable; only Chinese or English versions are allowed."

Choi Gyon-ok describes the registration process in Hyesan.
"In Hyesan, registration must be completed at the offices of the Provincial Radio Inspection Bureau, 109 Moral Discipline Corps, and the provincial Security Department, in that order. Once the registration has been completed, a certificate of registration is issued. In reality, the registration process people follow varies based on how the computer was purchased. For example, if the computer was purchased through legal channels, such as at a department store, the registration process is easy. The reason is that Internet connectivity and CD drives with copy functionality are already removed at the time of sale. As long as you bring your receipt to the office, you will have no problem with registration. On the other hand, if the computer was purchased from an individual seller or from a trading company, there is no proof of origin, and a bribe must be paid before registration. In this case, Internet connectivity and the CD drive are removed."

As Hyesan is on the border with China, the regulation is extremely strict. Inspections on registered computers are done two or three times a month.

The proliferation of unregistered notebooks

Choi Gyon-ok estimates that the number of registered desktop computers in Hyesan is around a few hundred at most. As desktop computers are difficult to hide, they must be registered. Due to this fact, they are not particularly popular. She disclosed the following information to us:

"Once a computer is registered, the periodic checks are so troublesome that ownership is not really worthwhile. The reason people buy computers is to watch South Korean and foreign TV shows and movies, and copy CDs. As a result, most people use notebook computers and do not register them. It is easy to hide a notebook computer. As you never know when there will be an electricity outage in North Korea, the internal battery in notebooks also comes in handy."

Thus, it seems that there are many unregistered computers in Hyesan.

Notebook computers are bought from individuals who smuggle them in from China. In the unlikely event that the computers are discovered, they are immediately confiscated, past use is aggressively checked, and all of the contents are inspected. To avoid getting caught, ownership of an unregistered computer is kept a secret from anyone outside the family. Choi Gyon-ok also spoke about black market software stores.

"Although South Korean software is banned, it is obviously much easier for us to use. There are black market sellers that sell South Korean versions of Windows and games."

Inspection of computers

Registered computers are subject to control and inspection. The following account of an inspection was told to our reporter Gu Gwang-ho by a male acquaintance in Pyongyang in the fall of 2011:

Reporter (Gu): When and where did the inspection take place?

Man: I think it was at the beginning of August. Two people came to do the inspection. One was the head of the local burg (neighborhood) administration office. The second person was a computer expert.

Reporter: How did you know he was a computer expert?

Man: The head of the local neighborhood office is friendly and told me afterwards. He told me he was from 109 Moral Discipline Corps.

Reporter: Did he wear a special uniform?

Man: No, he was wearing regular clothes.

Reporter: What type of inspection did he carry out?

Man: He put a CD into the drive and did a few things. It seemed he checked all of the saved files.

Reporter: Anything else? Did he check USB memory as well?

Man: No one is so careless as to leave a USB stick stuck in the computer. (laughs) He inspected the computer for about 15 minutes, said there was no problem and left.

Reporter: Did the head of the neighborhood office tell you the reason for the inspection?

Man: He kindly told me it was part of an effort to clamp down on libelous rumors about Comrade Kim Jong-un. He said they were going around to each house with a registered computer. They had started their rounds in July.

Reporter: What was the content of the rumors?

Man: I asked, but the head of the neighborhood administrative office didn't know either. He said only higher level officials knew.

Reporter: Was there any notification before the inspection?

Man: No. It was a surprise inspection.

Reporter: Were any of your neighbors arrested?

Man: None that I heard of. But it was probably a nationwide inspection.

Reporter: Are there often crackdowns like this?

Man: This was the first time for me.

Disallowance of media ownership

As we have seen, the main goal of censorship is to remove Internet functionality and CD playback/copy functionality. Regulations regarding the ownership of printers are even stricter. Gu Gwang-ho reported on the situation:

"As corporations and trading firms require printers, they are imported from abroad. A printer costs about 400 dollars. An individual is not allowed to own one, and their use at firms is strictly controlled. If a printer owned by an individual is discovered, it is immediately confiscated."

The largest animation studio in North Korea, "4.26 Children's Movie Studio" office. It seems to be equipped with the latest equipment. (Source: Pictorial Magazine *Tungdae*(Lighthouse), Issue 337. March 2010)

According to another internal reporter, Lee Jun, for regular enterprises that require printers for their business, such as print shops and photo studios, the printers must be registered before use. After registration, inspections are frequent and become a nuisance. Before the era of computers, other machines used to copy documents such as mimeographs and cyclostyles were also under government control. In other words, both before and during the digital era the government has taken

great pains to keep media out of the hands of its citizens. All forms of independent expression and speech are disallowed, and a consistently heavy-handed approach by the government has continued into the digital era. The goal of these actions seems to be to stop the spread of unfavorable information about the government and to squash any seeds of dissent.

A side note: Over the last five years, there have been reports from within North Korea of anti-government leaflets. Excluding leaflets flown in from South Korea on hot air balloons and those brought in from China, any other leaflets that we have heard about were all hand-written. This is a sad situation.

Other IT devices: MP3 and MP4

In addition to mobile phones and personal computers, the use of MP3 players (mobile devices for music playback) and MP4 players (mobile devices for video playback) are also increasing among individuals.

Both devices are becoming extremely popular among young people. Choi Gyon-ok has the following report:

"There are some students who use the devices to study English, but most people use them to secretly watch South Korean TV shows and listen to South Korean music. Confiscation has become stricter recently; if you are reported to the authorities, your house will be searched.

The price of a device depends on the functionality and memory size, but MP3 players can be bought for around RMB 120 (19 USD) and MP4 players can be bought for around RMB 250 to RMB 300 (40 to 47 USD). Although the price is expensive, these devices are incredibly popular and I would estimate around 70% of the young people in central Hyesan own them."

Ownership of MP3 players is legal. Although MP4 players were confiscated until at least 2008, our reporter was not clear about the legality of ownership at this point in time. If it is discovered that South Korean TV shows or music are saved on the device, the owner will be arrested. The videos and music are smuggled in from China on SD cards or CDs, and then copied to the devices with computers. It is likely that there are many teens listening to Korean pop music on their MP3 players in North Korean cities.

Video cameras and digital cameras are legal and freely available within North Korea for those who can afford them. It's become common to see city residents and wealthy citizens snapping pictures at public parks on their holidays.

TO BE CONTINUED IN PART 3

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