North Korea: Channeling Foreign Information Technology, Information to Regime Goals

Pyongyang is working with Koreans abroad and other foreign partners in information technology (IT) ventures, sending software developers overseas for exposure to international trends, granting scientists access to foreign data, and developing new sources of overseas information in a bid to develop the economy. Cellular telephones and Web pages are accessible to some North Koreans, while foreigners in Pyongyang have access to foreign television news and an Internet café. While such steps are opening windows on the world, however, Democratic People's Republic of Korea (DPRK) officials are largely limiting such exposure to areas required for economic development. Moreover, they are applying IT tools to develop new means of indoctrinating the public in North Korea and reaching audiences overseas.

Working With Foreign Partners in IT Ventures

North Korea is promoting cooperative ventures with foreign partners to develop IT, which DPRK media have repeatedly described as a priority area in science and technology. An editorial in the 10 November 2003 issue of the party newspaper *Nodong Sinmun*, for example, named IT as the first of three technical fields, along with nanotechnology and bioengineering, to which "primary efforts should be directed."

North Korean media suggest that officials have grasped the potential of leveraging IT for national development. A recent article in the government's newspaper asserted that (1) "IT trade surpasses the automobile and crude oil industries" and (2) "IT goods are more favorable in developing countries than they are in the developed nations" (*Minju Choson*, 7 March).

ROK analysts, such as those who compiled a survey of Pyongyang's IT industry (*Puhkan-ui IT Hyonhwang-mit Nambuk Kyoryu Hyomnyok Pangan*, 1 January), have suggested that DPRK policies for promoting a domestic IT industry reflect the nation's lack of capital, dearth of natural resources, and relative abundance of technical talent. Hoonnet.com CEO Kim Pom-hun, whose extensive experience in North Korea includes residence in Pyongyang from December 2001 to October 2002, has assessed North Korean IT manpower as resembling "an open mine with the world's best reserves of high-quality ore" (*Wolgan Choson*, 1 January).

Pyongyang is partnering with Koreans in South Korea, Japan, and China, as well as Chinese, in ventures to develop both software and hardware, including:

- The Morning-Panda Joint Venture Company in Pyongyang, a partnership between North Korea's Electronic Products Development Company and China's Panda Electronic Group, which began making computers in late 2002.

- The Pyongyang Informatics Center (PIC) and South Korea's Pohang University of Science and Technology (PUST), which are cooperating to develop virtual reality technology. In addition:

- The ROK's Hanabiz.com and PIC launched the Hana Program Center in Dandong, China, in August 2001 (http://hanabiz.com/history.html) for joint software development and training of DPRK programmers.

- IMRI—ROK manufacturer of computer peripherals—and CGS—a Tokyo-based software company affiliated with the pro-Pyongyang General Association of Korean Residents in Japan (GAKRJ, a.k.a. Chosen Soren)—joined hands in July 2000 to form UNIKOTECH (Unification of Korea Technologies) to develop and market software. Both partners maintain links to North Korean IT enterprises.

- The ROK's Samsung Electronics and the DPRK's Korea Computer Center (KCC) have been developing software together at a Samsung research center in Beijing since March 2000 (*Chonja Sinmun*, 15 October).

Venturing Overseas

To acquire information on foreign IT trends and to promote their domestic industry, North Koreans have begun venturing overseas in recent years.

- State Software Industry General Bureau Director Han U-ch'ol led a DPRK delegation in late September 2003 to the China International Software and Information Service Fair in Dalian. The North Koreans joined specialists from China and South Korea in describing conditions in their respective IT industries and calling for mutual cooperation. Participants from China and the two Koreas expanded on the theme of cooperation at the IT Exchange Symposium, sponsored by the Dalian Information Industry Association, Pyongyang's State Software Industry General Bureau, and Seoul's Korea Advanced Institute of Science and Technology (KAIST). Dalian Alios Technical Consulting, a company run by Chinese Korean Yi Sung-nam, hosted the exchange (www.kotra.or.kr, 15 October, http://hanabiz.com, 9 October).

- Pyongyang opened, in April 2002 in Beijing, its first foreign exhibition of DPRK software products developed by Kim Il-song University, Korea Computer Center (KCC), PIC, and other centers of software development (DPRK Korea Infobank, 16 May 2002).

- KCC Deputy Chief Technician Kim Ki-ch'ol led a delegation of DPRK computer technicians to the World PC Expo 2001, held in September 2001 outside Tokyo. KCC has worked with Digiko Soft—a company run by a Korean resident of Japan—to develop commercial software. Through Digiko Soft, the expo was the first show in Japan "of computer software developed in [North] Korea" (*Choson Sinbo*, 22 October, 1 October 2001).

- KCC computer programmers Chong Song-hwa and Sim Song-ho won first place in August 2003 in a world championship software competition of go—an Asian game of strategy—held in Japan. KCC teams have visited Japan and China on at least eight occasions since 1997 to compete in program contests for go, taking first prize three times.

Gaining Access to Foreign Data

North Korea has been acquiring foreign technical information from a variety of sources in recent years, benefiting from developments in technology, warming ties between the Koreas, and longstanding sympathies of many Korean residents in Japan.

- Authorities have held the annual Pyongyang International Scientific and Technological Book Exhibition since 2001, bringing foreign vendors and organizations related to S&T publications to North Korea (KCNA, 18 August).

- The Trade and Economy Institute, advertised as North Korea's "sole consulting service provider" on international trade, has been exchanging information with "many countries via Internet" since September 2002 (*Foreign Trade of the Democratic People's Republic of Korea*, 1 April).

- According to PUST President Pak Ch'an-mo, who has extensive DPRK contacts in academic and scientific circles, North Korea has been purchasing technical books from amazon.com and from South Korea (*Kwahak-kwa Kisul*, 1 April).

- Pro-Pyongyang Korean residents of Japan have long sent technical literature to North Korea.

- ROK organizations, including PUST and IT publisher youngjin.com, have been donating technical publications on IT in recent years to DPRK counterparts as a means of earning good will and contributing to the eventual unification of Korea (*Chonja Sinmun*, 11 August).

Cell Phones, Web Pages, and NHK

Within North Korea, the advance of IT technology has been suggested by a number of recent developments:

- Approximately 3,000 residents of Pyongyang and Nason have reportedly purchased cell phone service since November 2002 (*The People's Korea*, 1 March).

- Installation of a nationwide optical-fiber cable network in 2000, launch of the Kwangmyong 2000 Intranet the same year, and establishment of computer networks have made available domestic access to extensive technical databases maintained by the Central Scientific and Technological Information Agency, the Grand People's Study House, and other repositories of technical information.

- Via North Korea's Silibank Web site (www.silibank.com), established in Shenyang, China, in September 2001, registered foreign users can exchange e-mails with DPRK members.

- In August 2002, Kim Pom-hun, CEO of the ROK IT company Hoonnet.com, opened an Internet café in Pyongyang, the only place in North Korea for the public to access the Internet. Most customers of the service, which uses an optical cable linking Pyongyang and Shanghai via Sinuiju, are foreign diplomatic officials or international agency staffers; steep fees reportedly keep most Koreans from going on line (*Wolgan Choson*, 1 January).

- Foreign guests in Pyongyang hotels have had access to foreign news broadcasts of Britain's BBC and Japan's NHK since May 2003, according to a Japanese television report (TBS Television, 2 September).

Limiting Information to Technical Areas, Harnessing IT for Domestic Indoctrination and Foreign Propaganda

Development of the nation, rather than empowerment of the individual, appears to be driving DPRK efforts to develop domestic IT infrastructure and industry. Officials, scientists, and traders can now access and exchange information pertinent to their duties within the domestic Kwangmyong Intranet. Those with a "need to know" can even surf the worldwide Web for the latest foreign data. While Kim Chong-il reportedly watches CNN and NHK satellite broadcasts (*Kin Seinichi no Ryorinin*, 30 June) and supposedly surfs the Internet, the public has no such freedom to learn of the outside world without the filter of official propaganda.

Indeed, Pyongyang is using IT to indoctrinate the public and put its propaganda before foreign audiences. In addition to studying the party line through regular group reading of *Nodong Sinmun* in hard copy, a practice for indoctrinating members of work units throughout North Korea, the installation of computer networks now brings the newspaper to some workplaces on line, as the photograph below shows:

Moreover, Pyongyang has put its propaganda on the Internet.

- KCNA offers Pyongyang's line in English, Korean, and Spanish at a Web site in Japan at www.kcna.co.jp.

- News and views of the General Association of Korean Residents in Japan and its affiliated organizations appear on the group's site at www.chongryon.com.

- DPRK media, including newspapers *Minju Choson* and *Nodong Sinmun*, have appeared on sites originating in China, such as www.dprkorea.com and www.uriminzokkiri.com.