High tech made by North Korea: communication technology in the Democratic People’s Republic of Korea and its impact on society

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INTRODUCTION

At Christmas 2003, the Tagesspiegel, a Berlin newspaper, reported that KCC Europe (www.kcc-europe.de), a company set up by a former bank manager, Jan Holtermann, would construct internet access for the Democratic People’s Republic of Korea (DPRK). KCC stands for Korean Computer Centre. The director of the Korean company is the son of Kim Jong Il. Since Germany and other states do not allow the export of computer technology to North Korea, Holtermann installed the server in the embassy of the DPRK in Berlin, which is connected via satellite with Pyongyang. After three years of negotiations he had signed a contract with North Korean officials and had invested around one million euros in the network’s infrastructure, although ‘he initially expects slim profit margins due to the limited number of users.’

In an interview, the entrepreneur pointed out that North Koreans, now computer specialists, would be able to offer their services cheaply to the world and because of the time difference would be able to work for German companies during the night. He said: ‘The North Koreans are the Indians of tomorrow’. All they had to learn was how to write computer programmes. He estimated that North Korea already has around 6,000 computer experts with an average age of 27. Holtermann explained that the web project would involve the use of filtering software similar to that employed in Chinese and Cuban networks. According to their internet site presentation, the KCC project includes:

- Planning of infrastructure and design to meet local requirements
• Consultation and arrangements with German and international interest groups
• Building up of an internet connection from Germany to the DPRK via satellite
• Complete design of an ISP infrastructure
• Building up of an infrastructure in Germany and the DPRK
• Start of operations and control centre

However, use of the internet is restricted. Only a group of hand-picked people (the Communist elite) and state institutions, the leaders of the party, the military and the state office for tourism have access to PCs and mail. In spite of the internet café for foreigners in Pyongyang, which is connected via a line to China and used by a handful of tourists and diplomats, international organizations have to pay for an international call to Beijing to access the Worldwide Web (WWW). Holtermann told the German magazine Der Stern that in a charity performance for a kindergarten, the Nigerian embassy gained access free of charge to the web.

This paper focuses on the recent development of both the internet and the telecommunications system in the DPRK. By identifying and reviewing the reasons and trends involved in this process, it will analyse the political, economic and social consequences of the information revolution in one of the world’s most isolated countries.

DEVELOPMENT OF INTERNET AND EMAIL COMMUNICATION IN THE DPRK

Emailing is not really new; since October 2001 North Korea has been linked to an email server. The Silibank company in the northern Chinese city of Shenyang offers an email server and provides an email relay service (once an hour) between the two servers in China and the North Korean capital by using a high-speed bandwidth (since 2003 it has replaced the conventional

![Graph 1. Comparison between old and new methods of evaluation](http://www.silibank.com/silibank/english/emailprice.asp)