Computerisation, networking and household registration information management in China

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In February 1997 this column focused on the potential ethical problems associated with deploying data matching techniques by both public and private organisations. In light of the advantages in information sharing through expanding communication networks amongst more and more organisations, two issues were highlighted about the practice of data matching that are of moral significance to the public. The first was the accuracy of data being handled and the second was the security of networks. It was suggested that there must be a clear understanding of who has access to such information and how such information will be used. It was stressed that data matching must be used in a balanced way that is sensitive to the needs of organisations and society as a whole as well as to the rights of individuals.

Not surprisingly in the so-called information society or global village, technologies, which enable data matching and information sharing, have been introduced over the last five years into various social environments at a level not seen before. But to what extent does this kind of activity accommodate or address the two ethical concerns already mentioned? Consider the following Chinese case study.

China has, for the last half a century, a unique civil administrative practice called the household registration system, otherwise known as Hukou. Under this system, all Chinese citizens are mandated to register with the police their personal information including their residential address, religion and employment details, and, within a stated period, report any permanent or temporary changes. Since the mid 1980s, every Chinese citizen above age 16 has been issued with a Resident's Identification Card (RID), which holds basic information about the individual and his or her permanent address. Citizens are legally required to carry and produce the RID when and where necessary. Police stations within districts in China are responsible for operating this system. Before the

1980s, Hukou administration in a police station was manual and typically involved a number of police officers specifically tasked to do the registration work and maintain the manual filing system.

In the early 1980s, the Chinese police began to take advantage of the latest information and communication technologies in discharging their work and services. Computerisation of the household registration record has brought a significant transformation to policing in China today and has had a significant impact on the life of most Chinese urban residents. Initially, most of the household registration records were stored in individual computers located in diverse areas. Hukou administration remained essentially the same as the police merely automated the registration process and replaced manual files with computerised files.

Since the mid 1990s, with the development of database and networking technologies, the Ministry of Public Security, which is in charge of the Chinese national police, became aware of the potential benefits of connecting the diversely located computers into a national police information network. Consequently, it officially launched in 2001 the "Golden Shield" project, which aims to construct a multi-tiered police information web enabling communication and sharing of information amongst the Chinese national police, and improving working efficiency. The household registration information database is the backbone of this project with a variety of police operational systems such as crime prevention and detection utilising this database.

In 2001 the Ministry of Public Security was instructed to tackle the increasing number of offenders and primary crime suspects who were moving away from their original places of residence. This group continued to offend as they moved from one location to another. As part of the clamp down police at different levels and locations within the multi-tiered national police information network were advised to upload the information about known criminals or crime suspects. This information usually consisted of the crime committed and the person’s RID information. Police throughout China were then able to access this information across the network and then search their own computer records of household registration for possible and probable matches.

As part of this campaign, the police were also encouraged to stop all people on the street they deemed to be "suspicious" and to check them against the centrally updated wanted-criminals database. The police took action once they identified a match between information on a person’s RID and information on the database. This action was normally a detention and investigation of the person. This campaign lasted for two months and resulted in hundreds of thousands of arrests and charges throughout the country.

In terms of solving committed crimes this approach of information sharing and matching proved very successful. However there were concerns about the integrity of the information being uploaded and downloaded. One particular incident happened in a city

in the North Eastern Liaoning province, where one local police officer, for personal reasons, had uploaded onto the system the crime and personal information of three local people who had already been convicted and served their prison terms. This led to the three people being re-arrested and charged in a faraway city where they had just started their new normal life. Such kind of incidents or malfunctions of the system were not isolated during the two-month campaign. This has caused grave concerns amongst the general public, particularly the ever-increasing floating populations in many big cities in China because they are the primary target for such data matching during this type of policing campaign.

There is much to be learnt from this Chinese example. Understandably, this case study exhibits many social characteristics of the Chinese society, where the regime and culture are quite different from that in western countries. Nonetheless, the attraction of increased processing capabilities of new computing technologies and the appetite for more information by both public and private organisations is unlikely to be limited by national culture or political systems. Our fundamental human values could be compromised, and indeed will be compromised, if we do not treat with serious moral considerations the application of computing systems to data profiling, data matching and information sharing.

The ethical concerns raised in the February 1997 article still remain well founded. It is important to remain vigilant and to call for appropriate legislative frameworks, codes and operational procedures to relieve us of the worries associated with this type of computing application.

Please send your views on ethical and social responsibility issues and cases of ethical dilemmas to:

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