The Privacy and Security of An Identification Card: Malaysian Perspective

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ABSTRACT

Identification cards have long been associated with national security. In some countries, citizens are required to have a national identification card while others offer a voluntary one. Identification cards are being used in many countries around the world including most European countries, Hong Kong, Malaysia, Singapore and Thailand. Since new developments have emerged in the collection, analysis and dissemination of information about individuals, this article will elaborate on the collection, storage and disclosure of personal data in the form of identification cards while focusing on the new 'smart card' electronic identification methods with automated individual identification, biometrics technology and encryption controls. Several surrounding issues of privacy and security with regards to identification cards will also be clarified.

Development of Identification System – An Overview

Nowadays, it is quite impossible to come across a country without having any form of identification system of citizens. Majority of countries in the world now have certain kinds of national identification systems.[1]

The difference is whether the identification system is evident, transparent or otherwise. Some countries like Malaysia, Singapore, Germany, Belgium, Greece, France, Portugal and Spain have official, compulsory and national identification systems whereas countries like New Zealand, United Kingdom, Mexico and Bangladesh have cards for specific purposes such as health or social security.[2]

In fact, Malaysia has accepted paper identification since 1948 and launched the Government Multipurpose Card (GMPC) or smart card identification. The GMPC is used as a national identity card, driver's license, passport information and medical information as well as a debit card.[3] Legally speaking, a Malaysian identification card is legislated under the National Registration Act 1959 (Revised 1972) and the National Registration Regulations 1990.

Even though in Malaysia, like most other countries, there are other forms of identification such as the passport information, driver's license, student card and pensioner's card, the Malaysian identification card has always been given greater importance. The identification card is compulsory for any dealing with financial institutions and government departments. In practice, the usage of this identification card number is widespread, that nearly every other official or non-official form requires the disclosure of the number. As a result, various departments and agencies keep the identification card number of individuals for different transactions and reasons. However, prior to the digital age, there was little possibility that information could be collated to build a profile of a particular individual. And even if it were possible to manually arrange different information by way of the identification card number, it

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[1]History of National Identification Cards.Electronic Privacy Information Center. https://epic.org/privacy/id_cards/(Retrieved on 24/7/2015)
[2]Privacy International, Identity Cards, Frequently Asked Questions. http://www.pi.greennet.org.uk/issues/idcard/idcard_faq.html(Retrieved on 24/7/2015)
[3]MyKad: The Malaysia Government Multipurpose Smart Identity Card. http://www.malaysiacentral.com/information-directory/mykad-the-malaysia-government-multipurpose-smart-identity-card/#sthash.JmffRvYY.dpuf (Retrieved on 24/7/2015)

would most probably be used for surveillance purposes and would not be easily accessible for general administrative purposes. Sieghart (1976) argued that,

"More transactions will tend to be recorded; the records will tend to be kept longer; information will tend to be given to more people; more date will tend to be given to more people; more data will tend to be transmitted over public communication channels, fewer people will know what is happening to the data; the data will tend to be more easily accessible; and data can be manipulated, combined, correlated, associated and analysed to yield information which could not have been obtained without the use of computers".[4]

Now, as technology moves into new frontiers, there is the potential to match different data through the centralisation of information on computers. The potential for collating information on particular individual is also enormous.[5]

Identification Card and New Technologies – Malaysian Position

For Malaysian citizens, the words "*I need to see your IC*" are too familiar when dealing with any government department, conducting banking transactions and even sitting for a school examination. Malaysians have accepted that proof of one's identity is needed in return for a particular service or benefit. It refers to both public and private sectors.[6] However, technology has advanced so much that now an identification card can carry unlimited information about one's health, banking transaction(s), overseas travel, traffic offence(s), marital status, religion, sexuality, criminal record(s) and so on so forth.

Looking at the identification card that is envisaged here is said to be the world's first national smart card scheme to store biometrics data on an in-built computer chip. The multipurpose smart card is envisaged as a single common platform for government and private sector applications.[7]In details, the MyKad (current Malaysian identification card) incorporates 8 +1 applications (on chip) with speedy and secure access in carrying out a variety of electronic transactions such as identity verification, health information, payment, access, business and retail

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[4] Sieghart, P. (1976). *Privacy and Computers*. London: Latimer New Dimensions. pp. 75-76.
[5]Tucker, G. (1992). *Information Privacy Law in Australia*. Melbourne: Longman Cheshire. pg. 7.
[6] In Malaysia, the national identification card is commonly referred to as the "IC" (abbreviation for Identity Card)
[7]Samad Ismail (2001). *Security Features in General Multi Purpose Card*, presented at the Info Security 2001 Conference. Bangkok, Thailand. 3-5 July 2001.

service.The security features include authentication using symmetric-key cryptography, multi-layered operating systems with firewalls and a secure chip platform. Basically, MyKad incorporates two types of biometric technology for identification purposes, namely colour photograph of the card holder and the Digital Certificate.[8]The word 'My' signifies Malaysia's internet address as well as refers to personal ownership. Meanwhile the word 'Kad' is the acronym of 'Personal Identification Card' as well as refers to 'card' in the Malay language.[9]

Issues on MyKad

MyKad has been advocated as the first system in the world that meets the latest security features while incorporating a variety of applications from the various government agencies and the private sector in a simple card.[10] It will not only lighten one's wallet or purse but also make life easier and more manageable.

i) Privacy

Nevertheless, there are several issues with regards to the usage of MyKad that need to be further considered and clarified. First of all, the issue of MyKad holders' privacy. Privacy has been defined in many ways over the last century. Warren and Brandeis (1890) called it "the right to be let alone".[11] Others also affirmed that privacy consists of a form of autonomy over personal matters.[12] However in terms of MyKad's usage now, which is able to merge financial affairs with health records and interactions with government bodies, it has begun to create some fear that there may be acceleration in the centralisation and sharing of personal information. Consequently, it may affect a citizen's privacy. Furthermore, John Wehr (2004) reported that MyKad has been designed to allow any combination of government and payment applications to be loaded on any chip or device that confirms to the Government Multipurpose Card (GMPC)

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[8]Official Portal, National Registration Department of Malaysia, Ministry of Home Affairs. MyKad – Superiority at Your Fingertips. http://www.jpn.gov.my/en/informasi/mykad-kelebihan-di-tangan-anda/(Retrieved on 28/7/2015)

[9]Official Portal, National Registration Department of Malaysia, Ministry of Home Affairs. Introduction to MyKad. http://www.jpn.gov.my/en/informasi/pengenalan-kepada-mykad/ (Retrieved on 28/7/2015)

[10] Ibid.

[11] S. Warren and L. Brandeis (1890). *The Right to Privacy*. The Havard Law Review. Vol.4. pp. 193-220.

[12] Eisenstadt v. Baird (1972) 405 U.S. 438, 453; See also Louis Henkin (1974) Privacy and Autonomy. Columbia Law Review 74, 1410, 1425.

application.[13] Indirectly, it construes that the government and even the private sector may have limitless access to the personal data of an individual. In this regards, another issue is whether a MyKad holder is protected in order to safeguard his or her privacy. In brief, the smart card only allows a specific authority to access the relevant information stored on it and also gives the appearance that it has the ability to prevent identity theft and fraud. However beyond that, it is uncertain whether a cardholder has full control over which information could or should be given out.

One of the members of the Malaysian Bar Council's Human Rights Committee, Sonya Liew Yee Aun in 2009 argued that the privacy protections in Malaysia at that time are only in limited circumstances such as in the Penal Code, Communications and Multimedia Act 1998 and the law of confidence. What Malaysian citizens do not have, however, is a specific piece of legislation that expressly grants them the right to privacy.As such, it is imperative that Malaysia should have a Privacy Act.

On 15 November 2013, the Personal Data Protection Act 2010 (PDPA) came into force in Malaysia for the purpose of preventing the misuse of people personal's data for commercial purposes.[14]"Commercial transactions" is defined by PDPA to mean any transaction of a commercial nature, whether contractual or not, which includes any matters relating to the supply or exchange of goods or services, agency, investments, financing, banking and insurance.Meanwhile, the law applies only if the data or information processed is 'personal data'. Section 4 of the Act defines personal data to mean any information in respect of a commercial transaction, which: (a) is being processed wholly or partly by means of equipment operating automatically in response to instructions given for that purpose; (b) is recorded with the intention that it should wholly or partly be processed by means of such equipment; or (c) is recorded as part of a relevant filing system or with the intention that it should form part of a relevant filing system.

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[13]John Wehr (2004). Malaysia's national 'MyKad' ID card succeeding through service to citizens. http://www.secureidnews.com/news-item/malaysias-national-mykad-id-card-succeeding-through-service-to-citizens/ (Retrieved on 28/7/2015)

[14] theSunDaily. Personal Data Protection Act introduced on Nov 15. http://www.thesundaily.my/news/890666 (Retrieved on 28/7/2015)

However, it is paramount to note that the Personal Data Protection Act 2010 (PDPA) shall not apply to the Federal Government and State Governments as provided under Section 3 of the Act. Nevertheless, by enforcing the provisions under this Act of Parliament, it will indirectly safeguard the privacy of MyKad holders at least in the commercial transactions. It intends to protect the privacy of personal data and information which are both physically residing in computer systems and those transmitted over networks and the internet. Hopefully, it will enable Malaysia to start giving more importance to personal privacy as well as the issue profiling and data matching.

ii) Security

Security is another aspect of smart card as it does not only prevent unauthorized users from gaining access to data contained on the card but also secures the personal information therein. Thus, security may be regarded as a 'sine qua non of data privacy, for without it any perceived privacy protection is illusory".[15] Nonetheless, the measures used to secure private information will depend on the degree of privacy accorded to the material and the form in which it is stored.

In fact, the MyKad is a piece of plastic with an embedded microchip and has the dimensions of a standard credit card. The original card contained a 32K EEPROM (Electrically Erasable Programmable Read-Only Memory) chip running on the M-COS (MyKad Chip Operating System). In November 2002, all new MyKads were issued with a chip having an increased capacity of 64K. The card supports a digital signature key which is authenticated by a central authority when the card is created.[16]

MyKad also employs two biometrics measures such as the face and fingerprints where the chip and biometrics technology ensures that the data kept are secured and accurate. Biometric authentication is synonymous with the way human identifies one another. In other words, biometric systems rely on measurable physiological or behavioral characteristics that can be utilised to identify or verify the identity of an individual. It establishesa person's identity based

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[15] Tucker, op cit (n 5), pp 6-7.
[16]The Star Online (2013). One card for all. http://www.thestar.com.my/Lifestyle/Features/2010/02/01/One-card-for-all/ (Retrieved on 30/7/2015)

on pattern analyses carried out on specific human traits.[17] This is one of the advantages of MyKad over magnetic stripe card where in the area of access control biometrics are becoming more popular and the accuracy of its devices has increased. Adding biometrics can add a new level of security to smart card authentication.[18]

With this new technology on an identification card, a citizen is able to access a wider proof of experience, knowledge and certainly a higher level of security. However, it does not necessarily mean that it gives a perfect protection. It is because the main consideration for determining whether a system is secure or not depends on whether its level of security can fully protects the system itself.

The Importance of Identification

Practically speaking, all countries over the world nowadays are using certain forms of identification card and even with a compulsory national identification, there has been serious intrusion of privacy by both the government and private sector. As Dixon (2001) argued;

"The information society of the 21st century will grapple with privacy issues on many levels. Privacy issues will frequently form part of wider social and political dilemmas about the role of public and private institutions and the use of various technologies. How our society resolves these privacy dilemmas will depend on the extent of the trust that we are willing to place in governments, corporations, technology and in each other as individuals."[19]

The above argument shows that privacy violations are made more probable by digital footprints, online profiling and surveillance of communications. Somehow in certain periods, laws are not able to keep up with technology, leaving significant gaps in privacy protection. As such, the solution to privacy dilemmas could be to have higher security through better technology as any technology that is not judiciously employed would ultimately erode privacy protection.

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[17] Sharifah Mumtazah Syed Ahmad, Borhanuddin Mohd Ali & Wan Azizun Wan Adnan (2011). *Technical Issues and Challenges of Biometric Applications As Access control Tools of Information Security*. International Journal of Innovative Computing, Information and Control. Vol. 8. No. 11. pg. 7984.
[18] Thomas Suwald (2014). *Smartcards, security and biometrics. How biometrics-augmented authentication can make today's smartcards more secure*. Netherlands: NXP Semiconductors N.V. pg. 3.
[19] Dixon, T. (2001). *Valuing Privacy: An Overview and Introduction*. University of New South Wales (UNSW) Law Journal. Vol.24(1). pg. 239.

In this digital era, when more people are transacting anonymously via cyberspace, certain forms of identification would ultimately be needed and having an identification card would give a person more legitimacy. On the average, smart card identification is now prominent as the need to authenticate and identify the individual grows with technology demands. At the same time, biometrics and firewall will provide better security and protect the public against potential hackersand uncontrolled dissemination of information.

Conclusion

Undoubtedly, MyKad's wide range of built-in applications has raised concerns regarding privacy and personal information protection. It is crystal clear that the introduction of smart card identification must be supported by concrete legislation which might be able to protect privacy and promotes transparency.

Having lawsthat lay down strict privacy safeguards which government agencies must observe when collecting, storing, using and disclosing personal information while giving cardholders the right to access, amend or correct the information therein and at the same time, ensuring the accuracy and quality of the data matching and profiling.

Instead of having a comprehensive legal framework to protect the privacy of smartcard holders, it is also paramount for Malaysians to always stay knowledgeable and updated in terms of technology literate so that their personal data privacy shall be better protected.