

GEOINFORMATION TECHNOLOGY IN PUBLIC E-GOVERNANCE: LEGAL ISSUES & CHALLENGES

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1.0 GOVERNMENT v GOVERNANCE: DRAWING THE DISTINCTION

1.1 The terms “**Government**” and “**Governance**” have in the past been erroneously used interchangeably. To ensure such confusion does not persist here, perhaps it is best that we distinguish them at the start. The term “Government” refers to the institutional superstructure that society uses to translate politics into policies and legislation. Governance, on the other hand, has been described as “the outcome of the interaction of government, the public service, and citizens throughout the political process, policy development, program design, and service delivery.”¹

1.2 In “Government”, we focus on the superstructure, decisions, rules, roles, implementation and output. In “Governance”, we consider functionality, processes, goals, performance, coordination, results.²

1.3 Government and governance have common objectives – i.e. getting the consent and cooperation of the governed. However, whilst government is the formal apparatus for this objective, governance is the outcome as experienced by those on the receiving end. Electronic government (E-Government) can be a more productive version of government in general, if it is well implemented and managed. E-governance can evolve into participatory governance if it is well supported with the appropriate principles, objectives, programs and architectures.”³

¹ Donald F. Kettl, *THE TRANSFORMATION OF GOVERNANCE*, John Hopkins University Press, 2002 .

² Thomas B. Riley, “E-Government v E-Governance: Examining the differences in a public sector climate” , 2003.

³ Thomas B Riley, “Defining E-Government and E-Governance: Staying the Course”, available online at <http://www.egovmonitor.com/features/riley05.html>.

2.0 E-GOVERNMENT v E-GOVERNANCE

- 2.1 “**E-Government** refers to the use by government agencies of information technologies (such as the Internet and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends – better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.”⁴
- 2.2 “Analogous to e-commerce, which allows businesses to transact with each other more efficiently (B2B) and brings customers closer to businesses (B2C), **E-Government** aims to make the interaction between government and citizens (G2C), government and business enterprises (G2B), and inter-agency relationships (G2G) more friendly, convenient, transparent, and inexpensive.”⁵
- 2.3 “E-Government is a narrower discipline dealing with the development of online services to the citizen ... – such as e-tax, e-transportation or e-health. **E-Governance** is a wider concept that defines and assesses the impacts technologies are having on the practice and administration of governments and the relationships between public servants and the wider society, such as ... NGOs or private sector corporate entities. **E-Governance** encompasses a series of necessary steps for government agencies to develop and administer to ensure successful implementation of e-government services to the public at large.”⁶
- 2.4 In simple terms, E-Government (electronic government) refers to the use of Internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses, and other arms of government. Put differently, E-Government is the use of IT (Information technology) to deliver public services in a much more convenient, customer oriented, cost effective and altogether different and better way.

⁴ Definition of “E Government” by the World Bank. See <http://web.worldbank.org>.

⁵ Ibid. E-Governance can be considered as a spin-off of E-commerce.

⁶ William Sheridan & Tom B Riley, “Comparing E government with E governance”, available online at <http://www.egovmonitor.com/node/6556>. See also Khalid M. Al-Tawil, “E Governance – Where We Stand?” available online at <http://www.worldbank.org/mdf/mdf4/papers/altawil-sait.pdf>

2.5 If good governance is generally characterized “by participation, accountability and transparency” in managing the affairs of a country, then **E-Governance** is encouraging, engaging and empowering active citizen participation in the decision-making process and reinforcing the relation between the public officials and communities – this will in turn lead to more accountable, effective, inclusive and transparent government.⁷ Understandably, E-Governance has been described as “an effective approach to manage bureaucratic impediments”.⁸

2.6 **To sum up:** E-Governance is using information and communication technologies (ICT) to improve the governance processes – public policy formulation & implementation, internal government operations as well as the provision of relevant information services to citizens. The use of geo-information technology⁹ (GIT) in public E-governance “involves the design and implementation of flexible geo-information infrastructures (GII), properly embedded within the overall information infrastructure for public governance.”¹⁰

3.0 MALAYSIAN GOVERNMENT’S INITIATIVES

3.1 Malaysia began its Electronic Government (E-Government) initiative with the launching of the Multimedia Super Corridor (MSC) in 1996. Considered by many as part of a strategy to “reinvent” the government, its primary objective is to lead the country into the Information Age.¹¹

⁷ ADB Institute, High Level Seminar on E Governance, <http://www.adbi.org/event/2255.egovernance.seminar/>

⁸ Prof Sangeeta Sharma, “E-Governance: An Approach to Manage Bureaucratic Impediments”, available online at <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan019250.pdf>.

⁹ Geo-information technology (GIT) covers technology for collection and handling of spatial data like GPS, GIS, remote sensing or mobile telecommunication. It further includes aspects of applied computer science such as database technology, networks and computer graphics; knowledge engineering and human-computer interaction including software engineering, cognitive engineering and user interface design; and GIS-application design and development

¹⁰ Jantian Stoter & Yola Georgiadou, “Geoinformation Technology within an E-governance context”, 4th Executive Seminar for National Mapping Organizations, Dec 2006, Netherlands.

¹¹ At the launching ceremony of the National Symposium on Electronic Government in 1997, Prime Minister Datuk Seri Abdullah Ahmad Badawi said that the public sector should establish a body to formulate and develop an integrated vision and strategies for development of ICT in government agencies. Accordingly the Government IT and Internet Committee (GITIC) was established on 6 February 1998.

- 3.2 E-Government is actually one of 7 “flagship applications” introduced in the MSC.¹² The objectives of these flagship applications are to jump-start and accelerate the growth of MSC, to enhance national competitiveness, to create high value jobs and export growth, help reduce digital divide and make MSC a regional hub and test bed.¹³
- 3.3 Under the E-Government flagship, seven main projects were identified as being the core E-Government applications. The e-Government projects are Electronic Procurement (eP), Project Monitoring System (PMS), Electronic Services Delivery (eServices), Human Resource Management Information System (HRMIS), Generic Office Environment (GOE), E-Syariah and Electronic Labour Exchange (ELX).
- 3.4 Apart from these 7 main projects under E-government flagship, other public sector agencies have also taken similar initiatives to introduce online services, intended to enhance the ease and efficiency of public service to the people. Among these are the Public Services Portal (myGovernment), e-Tanah, e-Consent, e-Filing, e-Local Government (e-PBT), e-Kehakiman, Custom Information System (SMK), Pensions Online Workflow Environment (POWER), and Training Information System (e-SILA).

4. PUBLIC SECTOR ICT VISION

- 4.1 The Federal Government launched the Malaysian Public Sector ICT Strategic Plan in 2003 to provide “a clear direction on the utilization of ICT in the public delivery service.”¹⁴ Several initiatives were undertaken, which include the Government-2-Employee Portal, e-PBT for local authorities, e-Tanah for land administration, Online Income Tax Services, Integrated Financial Management System and many others.

¹² The remaining 6 flagship applications are the national multipurpose card, Smart School, Telehealth, E-Business, R&D Clusters, and technopreneur development.

¹³ Shaidin Shafie, “E-Government Initiatives in Malaysia and the Role of the National Archives of Malaysia in Digital Records Management.” See also Mohsin Hj Ahamd & Raha Othman, “Implementation of E-Government in Malaysia: The Status and Potential for Better Service to the Public”, and Dr. Badaruddin Mohamed, Lee & Alias, “E-Planning in Malaysia: From Vision to Reality”.

¹⁴ DPM Datuk Seri Najib Tun Razak, delivering a Keynote Address at “The International Conference on E-Government Enhancement via Knowledge Management”, Crown Princess Hotel, Kuala Lumpur, September 12, 2006.

4.2 According to Dr. Nor Aliah Mohd Zahri of MAMPU,¹⁵ the main thrust of the public sector's ICT vision is to "deliver efficient and quality service through the use of ICT." Briefly described, our ICT framework comprised several components including, *inter alia*, the following –

(1) A Gateway – enabling both the public and the business sector to perform a wide range of functions through common, convenient and one-stop access to government related information and Services;

(2) Community Applications – intended to provide services to the public and business sector, and requiring cross-agency interaction and co-ordination;

(3) Agency Specific Applications – to improve services and support operations of respective agencies for efficiency and effectiveness;

(4) Knowledge Bank – sharing of information and experiences within government agencies to increase productivity and improve efficiency and effectiveness; and an

(5) Enabling Environment – to ensure success of the ICT initiatives, there must be the effective (and inspiring) leadership, co-ordination, people & culture, policy, legislation, infrastructure, standards.¹⁶

4.3 In charting out the nation's public sector ICT direction, work is being carried out progressively through 4 separate (occasionally overlapping) periods or zones –

- (1) From 1967 – 2003 (covering the 4th, 5th, 6th and 7th Malaysia Economic Plans) – development of ICT infrastructure, development of core business applications, and computerisation;
- (2) From 1997 – 2005, Electronic Government early initiatives;
- (3) From 2003 – 2005, Public Sector ICT Strategic Plan;
- (4) From 2006 – 2010, eKL (2007-2010); Electronic Government 2nd wave – "Integrated and Connected Government".

¹⁵ Dr. Nor Aliah, "ICT Initiatives in the Public Sector", presentation made at the Persidangan Teknologi Maklumat UiTM", 24 April 2008, Port Dickson.

¹⁶ Ibid.

4.4 Scrutinised more closely, this public sector ICT direction reveals the following –

I. Achievements as of 2007

Application and renewal of registration company and business

Notice expiry driving licence through SMS

E-Consent at Land Office

Manufacturer licence application, investment incentives, foreign cost and duty exemption

ePBT implementation (Majlis Perbandaran Nilai and Majlis Daerah Port Dickson)

Payment transaction and check status frontline agencies

E-Submission at Klang Valley local planning authorities.

II. Expected achievements end 2008

Doctor appointment online and by phone

Online intake for primary and secondary school

Social Service (e-Masyarakat Module)

Loan and scholarship application

National Registry Database

eKL Portal – single gateway information and services Klang Valley area

III. Long Term Objectives – 2010

E-Tanah at all Land Offices

E-Masyarakat – social service and welfare

Call centre – query, information,

Klang Valley emergency service centres

Trade facilitation portal

5.0 EXAMPLES OF E-GOVERNMENT INITIATIVES IN MALAYSIA

5.1 The following represents a partial list of the E-Government initiatives commenced to date.

Government to Consumer (G2C)

- e-Khidmat
- ELX (Electronic Labour Exchange System)
- e-Syariah
- e-Tanah
- e-Consent
- e-Filing
- e-SILA
- e-PBT

Government to Business (G2B)

- e-Perolehan
- Business Licensing Electronic Support System (BLESS)
- Online SSM Services

Government to Government (G2G)

- SPPII
- HRMIS (Human resource management information system)
- GOE (Generic Office Environment)
- POWER
- GFMAS
- eSPKB
- SAGA
- SPEKS

ICT Projects in various Departments and Ministries

(1) Ministry of Housing & Local Government

Integrated Housing Development Management Information System

(2) Immigration Department

Sistem Auto-gate
Sistem Pengeluaran Pasport
Sistem Pendaftaran Pekerja Asing

(3) Survey & Mapping Department
e-Dagang
e-Map

(4) Companies Commission
Integrated Document Management System (IDAMAN)

(5) Ministry of Natural Resources & Environment
National Infrastructure for Land Information System

(6) Ministry of Defence
Sistem Pengurusan Komputer Bersepadu (TUDM)
Sistem Kakitangan Angkatan Tentera
Sistem Pembayaran Pencen Angkatan Tentera

(7) National Registration Department
Sistem Rekod Negara (SIREN)
Agency Link-Up System (ALIS)
Automated Fingerprint Identification System (AFIS)

(8) Valuation Department
Sistem Maklumat Penilaian Harta

6.0 ISSUES & CHALLENGES

- 6.1 According to a 2003 study on the receptiveness of these initiatives, results achieved were below expectation. Only 15% of the Malaysian public (those who are actually Internet users) were willing to access online government services, a small improvement from 2002 (at 12%). The study revealed that Malaysia ranks quite low (25 out of 32 countries) in terms of E-Government usage growth. The study also showed that the primary users of E-Government services in the country are people under 34 years of age, generally with high levels of education and income.¹⁷
- 6.2 More than 80% of the Malaysian public were clearly reluctant or not interested to use E-Government services. Was it due to lack of access or opportunity, feeling of insecurity, or some other reason?
- 6.3 For E-Government services to get widespread acceptance, concerns regarding privacy and security must be addressed early. A comprehensive and adequate legal infrastructure must be in place where not only privacy and security is assured, but also where every party involved is made fully aware of its rights, remedies and obligations. To date, some important statutes are already in place but the list is far from complete. We have the usual bundle of cyber laws such as Communications and Multimedia Act 1998, the Digital Signature Act 1997, Computer Crimes Act 1997, and Copyright Amendment Act 1997, but what about the rest – especially dealing with electronic transactions? The Telemedicine Act 1997 is virtually of little use, whilst no one can really say when the Personal Data Protection Act and the Electronic Transactions Act will see the light of day. A recent legislation, the Electronic Government Activities Act 2007 (Act 680) has only limited application. The main objective of the law is to recognise electronic messages in dealings between the Government and the public, the use of electronic messages to fulfill legal requirements and to enable and facilitate the dealings through the use of electronic means and other matters connected therewith.

¹⁷ Mohsin Hj Ahamd & Raha Othman, “Implementation of E-Government in Malaysia: The Status and Potential for Better Service to the Public”.

- 6.4 In Canada, considered by many to be the most advanced state where the Torrens system is being practised, electronic land dealings and registrations have been in place since 1980s. In New Zealand, electronic lodgments for title transactions and registration of dealings were made possible when their Land Transfer Act of 1952 was amended in 2002.¹⁸ Queensland had its Electronic Transactions Act in 2001, New South Wales in 2000, Victoria in 2000, West Australia in 2003, South Australia in 2000, Tasmania in 2000. However, despite the legal infrastructure already in place in these jurisdictions, issues of access to the system (identity fraud), the security and integrity of electronic databases are still amongst the major challenges in those countries.
- 6.5 What should be noted is that many of these issues and challenges affecting E-governance and the use of geo-information technology (GIT) transcend the realm of law, rules or regulations. Consideration must equally be given to the service delivery systems, work culture, operating procedures, uniformity and consistency, inter-agency collaboration and integration, client expectation, and national competitiveness.¹⁹
- 6.6 In electronic land dealings, just to take one example, as we move away from the paper world to the digital world, many challenges will continue to haunt us. Under the Torrens system, where for centuries the cardinal rule has been “Under the Torrens system, the register is everything”²⁰ and where (according to a recent decision of the Federal Court) registration confers immediate indefeasibility²¹, the question is whether things will be actually be better in this country or will the situation in fact gets worse before it gets better? According to one media report in 2007 (citing official statistics revealed in Parliament), there were 16 land scams recorded in 2001, 19 in 2002, 22 in 2003, 32 in 2004, 35 in 2005, and 80 in 2006. Distressed by this awful state of affairs, National House Buyers Association secretary Chang Kim Loong was quoted as saying that such cases of land scams, if unchecked, “could lead to a loss of confidence in the Malaysian property market.”²²

¹⁸ Prof Sharon Christenson, “Electronic land dealings in Canada, New Zealand and UK: Lessons for Australia”, Murdoch University Electronic Journal of Law, [2004] MurUEJL 37.

¹⁹ Dr. Nor Aliah, “ICT Initiatives in the Public Sector”, presentation made at the Persidangan Teknologi Maklumat UiTM”, 24 April 2008, Port Dickson

²⁰ Salleh Buang, MALAYSIAN TORRENS SYSTEM, 2007, 2nd edition. DBP, Kuala Lumpur, p. 14.

²¹ Federal Court decision in *Adorna Properties Sdn Bhd v oonsom Boonyanit* [2001] 1 AMR 665.

²² “Land scams on the rise”, Sunday Star, December 23, 2007.

- 6.7 The fear that “greater use of electronic methods will make the registration of land titles more vulnerable to fraud” is shared by many.²³ Dr Adam Graycar, Director of Australian Institute of Criminology, said “It is always important to remember that crime follows opportunity, and opportunities for fraud flow from economic activity.” In the past, our focus has been on “sophisticated paper-based systems.” However, as we move into online registration of titles and electronic transactions, “new opportunities arise for people within organisations as well as for external customers to misrepresent themselves and to manipulate electronic transactions for financial gain. Confronting burgeoning identity fraud is a key challenge for us all.”²⁴

7. OECD GUIDING PRINCIPLES ON E-GOVERNMENT

- 7.1 Analysis and evaluation of past efforts in many jurisdictions on E-Government revealed that many of these initiatives achieved only limited success, whilst a few were outright failures. Some of the identified causes were unrealistic deadlines, cost over-runs, unworkable technologies, and training inadequacies. In some less developed countries, the problems were compounded by a combined lack of resources, unskilled personnel unable to build and maintain the required infrastructure, lack of connectivity and access to electronic services.
- 7.2 In an effort to address these problems, several governments, consultants, public interest groups, and inter-governmental organizations put their heads together to come up with the suggested solutions. The Organization for Economic Cooperation and Development (OECD) and the Pacific Council on International Policy (PCIP) were amongst these organisations.
- 7.3 According to the OECD 10 Guiding Principles of E-Government, the success of any E-Government initiatives will depend a great deal to what extent the following pre-requisites have been fulfilled –²⁵

²³ “Fraud risk in land titles”, <http://www.aic.gov.au/media/2002/20021113.html>.

²⁴ Extract of Keynote Address presented at the 30th Australasian Registrars' Conference in Canberra, November 2002.

²⁵ Thomas B. Riley, “E-Governance comes of age in the Commonwealth”, at <http://www.electronicgov.net>

| The OECD's Ten Guiding Principles on E-Government |
|---|
| <i>Commitment:</i> proclaim feasible goals and provide financial support |
| <i>Rights:</i> assure access, privacy and confidentiality to all users |
| <i>Clarity:</i> adopt measurement standards for electronic service delivery |
| <i>Time:</i> provide long-term time frames - avoid artificial deadlines. |
| <i>Objectivity:</i> set criteria for network performance and user satisfaction |
| <i>Resources:</i> hire skilled personnel to design, implement, and operate facilities |
| <i>Co-ordination:</i> use common look & feel, and document content control |
| <i>Accountability:</i> be accountable for electronic service quality and quantity |
| <i>Evaluation:</i> conduct annual e-government audits and performance reviews |
| <i>Active citizenship:</i> encourage active use; incorporate suggested improvements |

8.0 PUBLIC ENGAGEMENT: ONE STEP TOWARDS E-DEMOCRACY

- 8.1 The principal challenge for governments in the 21st century is to establish mechanisms “how to embrace more of the public into the decision-making process”?²⁶ For example, should governments consider the following – wider publication of information (providing easy access to available information in government databanks), wider use of online consultation. Stimulate civil society e-democracy endeavours, and develop intergovernmental best practice centres?
- 8.2 With modern ICT technology, a larger section of civil society can now engage in a meaningful interaction with government departments and public sector agencies. Engaging citizens to take part in the workings of the democratic process in any society must certainly have beneficial results. To arm the citizen with knowledge is to reinforce and strengthen the democratic norms and foundations of society.²⁷
- 8.3 Discussions of E-government and E-governance inevitably lead to the question of citizen participation. This can take many forms and over the years have been called by different names – participatory democracy, E-participation, teledemocracy, and E-democracy. The

²⁶ Thomas B. Riley, “E-Platform for Citizens’ Engagement: A Three-Tier Approach”, International Conference on Engaging Communities, Queensland, August 2005.

²⁷ Ibid.

latter has of late come to be the umbrella term for citizen participation in the political, bureaucratic and legislative process.²⁸

- 8.4 The E-democracy movement is driven by the emergence of ICT technology – which allows instantaneous communications, sharing of information and building networks of people and groups who share common interests and ideologies. In the 21st century, the Internet has become an important organizational tool for all kinds of groups and citizens who, in the past, found it extremely difficult to be heard by the government.
- 8.5 Online consultation has become the preferred way in many jurisdictions of obtaining input from the citizen before any new policy is being formulated or initiative taken. In the United States, the practice is found both at the state and local levels. There are also many online consultative activities in France and in the Scandinavian countries. The State of Queensland in Australia has been developing extensive E-participation tools through use of web sites, kiosks and other mechanisms to extend e-participation. In Ontario, Canada, there is a Gateway (called “Town Hall Ontario”) for the private citizens to engage directly with the Ontario Government.
- 8.6 In Britain, the government is actively pursuing ways and means to change the current methods of representative democracy and to bring people into the system through the use of the ICT technology.²⁹ Two principal ideas were given serious consideration: E-Voting and E-Participation. E-Voting refers to the the use of ICT to facilitate participation in elections or other ballots under statutory control. E-Participation is the use of ICT to open new channels for participation in the democratic process (eg policy formulation, law-making) between elections.
- 8.7 In November 2001, the Queensland government approved a comprehensive community engagement policy and an E-democracy policy framework. The government wanted to find

²⁸ Tomas B. Riley, “E-Governance to E-Democracy: Examining the Evolution”, available online at <http://www.electronicgov.net>.

²⁹ See the UK Government’s E-Democracy Consultation Report “In the Service of Democracy”, July 2002. The report emphasized that the goal is the improvement of democracy, not the promoting of technology. Technology is seen as the enabler, a tool to achieve policy goals, not as the solution to a problem

ways how the Internet can be used to strengthen participative democracy in the state. Amongst the measures introduced were –

- (a) indicating the issues in a government website, on which the government desires wide consultation and feedback;
- (b) providing online access to government consultation documents relevant to those issues, such as discussion and policy papers, and draft bills;
- (c) broadcasting Parliamentary debates over the Internet; and
- (d) developing a system to accept petitions to the Queensland Parliament online.

8.8 In the United Kingdom, the government had laid down some basic rules for online consultations (forming part of the Code of Practice on E-democracy), namely –

- (a) The timing of consultation should be factored in before any new policy is being formulated or law being drafted;
- (b) It should be clear who is being consulted, about what questions, in what timescale and for what purpose;
- (c) A consultation document should be as simple and concise as possible. It should make it as easy as possible for readers to respond, make contact or complain;
- (d) Documents should be made widely available, with the fullest use of electronic means (though not to the exclusion of others), and should be effectively drawn to the attention of all interested groups and individuals;
- (e) Sufficient time should be allowed for considered responses from all groups with an interest. Twelve weeks should be the standard minimum period for a consultation;
- (f) Responses should be carefully and open-mindedly analysed, and the results made widely available, with an account of the views expressed, and reasons for decisions finally taken.³⁰

³⁰ <http://www.e-democracy.gov.uk>. See also “E-Methods for public engagement: Helping local authorities to communicate with citizens”, at http://itc.napier.ac.uk/ITC/Documents/eMethods_guide2005.pdf.

8.9 In summary, to quote Riley, “If citizens are to be engaged online, then the tools need to be provided, the issues broadcast widely, the facts made clear and stated in a palatable, understandable form, access to the means for input given to those who will be directly affected by the issues, a safe public space provided for an informed debate, and rational incentives for the ordinary citizen to enter into them.”³¹

³¹ Thomas B. Riley, “E-Governance to E-Democracy: Examining the Evolution”, p. 31.