ISSUES UNDERPINNING INFORMATION POLICY IN MALAYSIA: AN ARTICULATED HOLISTIC MODEL

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Abstract

Information policy is necessary to strategize planning so as to ensure continous information access and availability to the citizen of a nation. However, studies in information field particularly information policy-making, are scarce despite the fact that information policy-making has been confronted with problems resulted from the absence of standardization in issues underpinning the formulation of information endeavour. In Malaysia, information policies are created as reactions to issues that crop up at any one time. This caused information policy makings done in isolation, not coordinated and intergrated, resulted in policy that is decentralised, conflicting, non-comprehensive and disintegrated. This study seeks to determine the issues underlying information policy and propose a comprehensive anor holistic information policy model for Malaysia where currently the information policy is overshadowed by the information technology. A qualitative design, with a combination of document content analysis and interviews, was employed for data collection. 91 issues were identified as commonly underpin the national information policy. These issues were then grouped into 6 categories which was later used to underpin the new proposed information policy making model.

Keywords: *Holistic information policy model, National information policy, Information policy of Malaysia.*

1. Introduction

The status of information as an asset has urged all things related to institution's, infrastructures and information resources, to be managed systematically and effectively. Information management requires a well written policy to guide the direction of information services. A framework of concepts and practices was formulated to form the basis of information policy making since the 1950's (Schwuchow, 1999) and grew gradually in the 1970's, such as by Lamberton (1974) and most recently, by Koga (2010) and Case (2010). During the early stages of information policy making, policies were devised with limited purposes such as to ensure the accuracy and security of information (Dae, 1996), to provide scientific and technical information, and to establish public libraries (Bustamante, 2007; Soler, 2007). Later, information policy making is overshadowed by Information and Communication Technology (ICT) as it is seen central to many information issues, particularly the formation of knowledge society (Soler, 2007).

This paper aims to determine issues underpinning information policy making. These issues are then classified into sectors.

2.   Problem Statement

Most information policies are made up of a wide range of issues which have not been agreed upon (Duff, 2004) and focus on certain aspects applicable to restricted sectors only. The diversity of issues underlying information policy led to studies researching into only issues suggested by previous researchers (Rabina, 2001; 2003a, Henrici, 2004; Arnold, 2007) without attempt to determine which issues are crucial and common to many organizations and countries. Determining issues underlying information policy making is crucial (Wilkinson & Nilsen, 2010) to avoid misunderstanding resulted from the perceptions and attitudes of researchers (Arnold, 2007) which could affect the analysis and the development of comprehensive information policies. This paper seeks to analyse the issues underlying information policy making followed by classifying these issues into six distinct categories. Various attempts were made in the 1970s (Lamberton, 1974) and still continued until to date (Koga, 2010; Case, 2010). The issues identified are such as Scientific and technical information (Lamberton, 1974; Ruenwai, 2006; Orna, 2008); Library and information services (Chambers, 2006; Arnold, 2007; Bustamante, 2007; Pajaro & Betancourt, 2007a); ICT (Beer, 2005; Hosman & Howard, 2010); Social (Maxwell, 2003; Pajaro & Betancourt, 2007a); Government information (Smith, Fraser & McClure, March, 2002; Orna, 2008); and Economy (Porat, 1977; Rowlands, 1996; Rowlands, Eisenschitz & Bawden, 2002; Saxby, 2011). Since information policies in Malaysia are developed by various agencies based on issues arising at any one time despite that different agency has different goals. This has caused the issues underlying information policy making to overlap and conflicting. It is therefore this study seeks to identify and determine the issues underlying information policy making, classify these issues into sectors, and finally propose a new holistic model which is flexible or can be articulated to suit the requirement of other agencies.

3.   Objectives

The objective of this paper is to propose an information policy model for Malaysia. Prior to the development of such a model, issues commonly associated with information policy making need to be explored because these issues will serve as the basis for the model. Such an objective is achieved through the analysis of data collected using document analysis techniques involving primary documents (the Hansard and the Senate), and interviews with prominent figures who has engaged in the formulation and the implementation of information policy making in Malaysia.

4.   Method

This study uses qualitative approach employing content analysis and interview techniques to collect data since the approach is popular for studies of this nature (Deborah, 2001; Arnold, 2007; and Ahmad Naqiyuddin, 2008a) such as carried our by Bryman & Bell (2007) and Creswell (2009). The content analysis technique refers to two sources namely the Malaysia Plan documents and Hansard focussing on sectors such as Technical and Scientific Information; Library; ICT; Social; Government; Economics; and Education. Such an approach is recommended by Xue (2005). The interviews has been carried out with 4 prominent figures by emphasising on 3 key sectors, namely information policy-making related agencies (NITC, NITA, MSC, and MDeC); Government Information; and Library and Information Services as suggested by Lallana (2004); Xue (2005); Ahmad Naqiyuddin (2008a); and Tengku Mohd Azzman, (2008).

5. The Concept of Issues in Information Policy

Literature in the area shows various terms are used to refer to issues in information policy such as 'information policy components' by Priftis & Oppenheim, 1999; 'information policy values' by Overman & Cahill (in Browne, 1997) & Maxwell, 2004; 'information policy c'oncept by Rowlands, Eisenschitz & Bawden, 2002; 'information policy elements' by James, 2001; 'information policy scope' by Moore, 2005; and 'information policy field of actions' by Pajaro & Betancourt, 2007. This study prefers the term 'issues in information policy' as used by Trauth, 1986; Arnold, 2002; Lester & Koehler, 2003; Smith, 2004.

6. Related works on Information Policy

In 2001, James urged that several elements should be considered when formulating information policy as follows: The right to communicate; legal and regulatory framework; freedom of expression and information exchange; diversity of content, ownership and control; the licensing and control of intellectual property; privacy; global, regional and national governance of ICT infrastructure; and rights awareness and realisation of right.

Arnold 2002) produced a list of 17 issues of national information policy typically addressed in 39 countries in Europe, North America, Latin America, The East and Africa. The issues are: the north-south divide; information content, industrial competitiveness and innovation; literacy; computer literacy; education and skills training; information society development; telecommunication issues; copyright; industrial property right; government communication; access to information; censorship; information ownership; freedom of speech; privacy; intellectual freedom; libraries and other issues.

Policy and Resources Committee of The Library Association (2002) has endorsed the report and recommendation of the Policy Advisory Group (PAG) on National Information Policy and produced seven categories of information policy as listed below:

i. Social aspect
    The issues are: learning society; developing world; quality of life; human rights act; European community; lifestyle changes; globalization; creative industries; competitiveness; and knowledge economy.

ii. Library and information profession
    The issues are: Information skills & competencies; library & information sector staff; user communities; organizational capacity; workforce planning or supply of information specialist; necessity of information skills to an effective NIP; how the community sector can manage its information needs.

iii. Other Issues
    The issues are: content delivery; interoperability; freedom of information; privacy or confidentiality; heritage or legacy; authentication; e-commerce; networking; standards or protocols; e-government; e-business; social inclusion; legal deposit; conservation; universal access; quality; metadata; content creation, and intellectual property right.

Rowlands et al. (2002) used the political economy frame to make better understanding about national information policy issues. They provided five information policy sub-domains as follows:

i.   Information protection.
ii.   Information market.
iii. Broadcasting and telecommunication.
iv.   Public access to official information.
v.   Information society and infrastructure

Lester and Koehler (2003) insist that there are three main fields of the national information policy such as: policy linked to generation and production of information. Legislations are copyright; patent; trade mark and business secrecy; policy linked to dissemination and access to information including policy related to access to government information and government owned information; and policy linked to distribution of information. It was admitted by Maxwell (2004) that it is not easy to develop the taxonomy of information policy. Nevertheless, he proposed two-dimensional space to identify information policies. The first dimension consists of differentiations between individual and communal obligation and the second dimension maps the policy's relevance to four primary realms: the sovereign (national information concern), transformation (individual creativity and happiness), production of information and dissemination, and global trade and cultural exchange.

There are 12 issues discovered by Smith (2004) pertaining to information policy as identified by 7 panels i.e. American Institute of Aeronautics and Astronautics, American Psychological Association, National Agricultural Library, BIOSIS, Chemical Abstracts Services, American Meteorological Association, and Defence Technical Information Centre. The issues are: copyright; intellectual property; database protection; security and privacy; information integrity; digital archiving; open and universal access to government information; standards for accessing data; international standards; pricing; information resource management; protection against unwanted delivery; role of libraries in the electronic age; and depository libraries. But according to Shaeffer (in Moore, 2005), information policy has to be classified into three main areas such as conectivity, content and competency beside there are other issues such as: buidling basic telecommunication infrastructure; the need for policy to support the development of the information sector in the economy; the need to support the education and training of information specialist, as distinct from ICT-specialist; and the need to move from ICT literacy to information literacy.

In addition, Uhlir (2004) suggest that the following key procedural elements should be taken into account in developing the national information policy framework. These are: the policy framework must reference all supporting reports and laws; analytical factors that need to be considered are: legal; economic; institutional; social and culture; research and education; and specific applications areas such as health, environment, energy, transportation, finance and defence, also need individual consideration.

Such a differing views were made because according to Moore (2005) the scope of information policy is broad consisting of a collection of policies and strategies that are designed to promote the development of an information society. He produced seven categories of information policy as listed below:

i.   Overall policy and vision
     Government should produce overall document that provide a vision, scope of policy framework and specify the measures that will be employed to achieve the policy goals.

ii. Telecommunication infrastructure
     The issues are: network development; public and private sector roles; pricing policy; universal access and regulation.

iii. Information sector
     Issues under this category are: information content; information delivery and processing.

iv. Information and Organizations
     The issues are: the public sector and e-government, private sector and e-commerce and enabling policy.

v.   Information in society

The social use of information covers the policies and measures that are concerned with the provision and use of information by individuals in their roles as citizen and as consumer. The issue is generally known as overcoming the digital divide.

vi. Legal and regulatory framework
Issues in this category are: intellectual property rights; data protection; access to information and censorship.

vii. Skills and Competencies
Issues in this category are: information literacy; general information handling skills and information specialists.

According to Arnold (2004), the development of national information policy for developing countries should be linked to socioeconomic development. As such, his study focused on the policy related to information life-cycle; the relevance of public policy on the application of information; the relevance of the application of information; access to and the availability of information; social factors; and economic factor linked to the information economy of a country.

Bustamante (2007) carried out a survey and analysed plan and action regarding national information policy in 19 countries in Latin America using the following framework listed as below. However, it is not stated how the issues were derived.

i.   Policy regarding access to public library, promotion of books, reading & Laws on Book
ii.   Policy on scientific & technical information
iii.   Policy on mapping and statistic information
iv.   Policy on access to public information on government administration
v.   Policy on traditional information protection
vi.   Policy on information communication technology and information society.

Also in 2007, Pajaro and Betancourt presented a list of areas in national information policy according to three guidelines i.e. millenium development goals of United Nation, Objectives produced by eLAC 2007 Action Plan on Regional Plan of Action and National development objectives such as follows:

i.   Democratize Access. The issues are: information communication infrastructure; access to information; access cost; national information systems; application and software; public libraries and reading campaigns; distribution of scientific and technical information; public access centres; conservation of information and universal access.

ii.   Developing Potential. The issues are: development of national content; digital literacy; innovation; research & development; technology transfer and protection of traditional information.

iii.   Legal and Regulatory Framework. Area of action needed to be addressed is normative convergence.

The International Engineering Consortium (IEC)(2007) stipulates that in the past, information industry was divided into three main components namely computer industry related to information storage and processing, industry related to work automation and information creation and display, and telecommunication industry. IEC produced a matrix to depict all forms of information i.e. text, voice, image, audio and video in the horizontal axis and related industries i.e. content creation industry, display industry, storage industry, process industry and distribution industry in vertical axis.

7. Data Analysis and Findings

Data analysis is divided into two parts. First, an analysis in the form of a reflection of the primary data extracted from the Hansard. This is followed by an analysis using two methods. First, to make a comparison of the findings from the analysis of the documents and second, identify any conflicts of data from the primary source. Analysed documents are not restricted in terms of their year of publication, for the purpose of identifying any changes.

A. Considerations resulting from the content analysis of primary documents
Reflection analysis was performed based on sectors.

   i.   Technical and Scientific Information

The government recognizes the importance of scientific and technical information to the development of the country, which was translated into action thus:
-       Formulating the National Science and Technology Policy, 1986.
-       Establishing the Scientific and Technology Information Centre Malaysia (MASTIC) in 1992, in order to maintain scientific and technical information from within, and outside of, the country.
-       Setting up the Council of Education and the Advancement of Science (NCSRD), in order to coordinate and consolidate its R&D. Funds available for financing, commercialization of R&D, and innovation (Science Fund, the Technology Development Fund, and Innovation Fund Scheme).
-       Application of scientific and technical information, such as information on AIDS and palm oil, whether for social or economic reasons.

The analysis found that technical and scientific information is not described as critical information to be provided by the government. A search using the keywords 'technical and scientific information from 2005 to 2011" did not highlight the Official Statement of the House of Representatives, and the "Senate Malaysia" related keywords search for scientific information found only two documents. Members of Parliament (who will voice the needs and aspirations of the people) were not receiving calls from people about information, no matter whether the government provided technical and scientific information or not. The technical and scientific experts did not show any pressure for scientific and technical information, prepared for use by this group.

Despite the policy of technical and scientific information, the basis for the formulation of this policy cannot be traced. In fact, scientific and technical information are not linked to other sectors, and in particular, social and other library groups did not show any growth or expansion into other sectors. This is contrary to the policy's goals of information dissemination, sharing, and providing information; particularly amongst scientists and other areas (Lamberton, 1974).

The government addressed the issue of an integrated ICT infrastructure, the acquisition of electronic resources, improved services, communication, feedback, consumer education, R & D financing, balance of scientific information, and the effective use of resources, in line with recommendations made by Ruenwai (2007). However, issues such as electronic library transactions and knowledge sharing are not stated clearly in the debate on scientific and technical information.

   ii.   Library and Information Services

As information provider, the library and information services sector plays an important role in policy formulation and the supervision of information (Gill, 2001; Kargbo, 2007). However, the analysis did not find any documented library role in the development of information policy, either in Act 80, Act 331, the A667, and the National Policy for Library and Information Services. The Official Statement of Parliament and the Senate did not address the importance of libraries as a leader in information policy, and there were no recommendations from Members of Parliament and the House of

Representatives to appoint a library as a member of the National Information Technology Council (NITC) - a coordination body connected to information in Malaysia. Information professionals that were not involved in the preparation of policy and research information immediately saw the lack of influence and power of this group.

The role of the library as a source and provider of information to assist economic and social development is not significant. The significance of the library is limited to information infrastructure issues. Therefore, a culture and information policy, called a Ubiquitous Library (U-Library) should be created (Anon, 2010).

    iii. Information and Communication Technology (ICT)

Despite its omission, Malaysia is one of the Asian countries that have a good infrastructure (Muhammad Abkari & Mukhtar, 2006). Even though there are states that are geographically inaccessible (i.e., Sabah and Sarawak), ICT facilities remain available through wireless technology (House of Representatives of Malaysia, 2000). Recognizing the importance of providing broadband internet, the government approved a National Broadband Plan in October 2004 and received positive input for the introduction of a five-year Blueprint MyICMS plan (Malaysian Information, Communications and Multimedia Services) 886 (Rashidah, 2007).

This debate revolves around the provision of ICT infrastructure and technical aspects, such as ICT standards. Members of Parliament and Senators do not correlate with these infrastructure issues, believing that infostructure content and ICT issues should be addressed separately. However, isolated critical infostructure issues need to be developed for this country. Ding (1998) claimed that the country depends on up to 75% of its information from overseas, while giving space to the enemy would allow attack from various angles, particularly economic, socio-political and sovereignty. Content developed by external parties raises questions in terms of compatibility with local values and cultures. This is consistent with the view by Saxby (2011) that ICT success not only lies in the provision of infrastructure, but the extent to which the development of local content can keep up with the introduction of ICT in the country. ICT is also an issue in other sectors, particularly library services, but only for the purpose of increasing the quality of information management. It is time for a ministry to be created to manage and administer information, including creating, maintaining, disseminating, retaining and disposing, of information effectively, through human resource professionals.

    iv. Social

ICT was triggered to form a society. Development of an information society requires the government to overcome several obstacles, particularly the low rate of computer literacy, as the nation ranked 24th in terms of information technology skills, compared with Sweden, Finland, Denmark, Singapore, and India (Malaysia Productivity Corporation (MPC), 2009). In terms of internet usage, Malaysia was ranked 49th against Denmark, Iceland, Sweden, Finland, Republic of Korea, United Kingdom, and Germany. The digital divide is still vast and to close this gap, the government is implementing the Rural Internet Program, InfoDesa; and will provide computers to schools.

    v. Government Information

Information is a critical resource to the national development process. The government needs to establish strategies to enable accessible information to its citizens. However, the Malaysian government has not recognized information as a critical source, and thus, is not providing the information needs of its people. Bad information, not providing necessary links, and inadequate information, are amongst the complaints about government information uploaded to their official website. The problem is not technology, but the political leadership and commitment from the top-level bureaucracy, in harnessing ICT facilities to provide better services and information to people. To

enable government information to meet people's needs and contribute to national development, Saxby (2011) recommends the following actions:

a.   take into account the views of the people through online support forums as important to help people.
b.   government officials should be trained and anxious to support a public information service.
c.   using online techniques for open dialogue and breaking the traditional process of consultation.
d.   change the geographic data (digital maps) for public use and the economy.
e.   modernise data publishing and reuse to improve public services and create new business.
f.   recognition of the importance of government to assure the success of changes to the functioning of public services.

The current culture of sharing information needs to be enhanced to be able to add value to data, thus reducing development costs other than to encourage the generation of ideas. Traditional mechanisms through lobby, parliament, and regular consultation processes that occur at various stages of policy development should be deleted (Saxby, 2011).

vi. Economy

The growth of export-oriented industries cannot bring Malaysia to achieve the economic targets of Vision 2020 (Tengku Mohd Azzman, 2008). To overcome this problem, use ICT through the MSC agenda to make a quantum leap. MSC is an attempt to develop a dynamic industrial cluster that aims to produce multimedia products and services based on innovative ICT. MSC is expected to be a catalyst to industrial applications and content.

Malaysia has a good plan, a detailed and comprehensive view of the desire and government policy, to change the existing economic system to an information-based economy. However, the issue of human resources to provide creative and innovative, high outflows of knowledge workers, and efforts to attract Malaysians who are abroad, should be done seriously. Plans and initiatives for an information based economy need to be articulated and understood by all levels of society. However, the relationship between the need to provide ICT infrastructure with the goal of economic change based on information is clear and understood amongst policy makers. Such an approach is consistent with the trends at international level (Arnold, 2007) that links information technology with social and economic development.

vii. ICT education

The government recognizes the importance of ICT education as a medium for developing an information society, innovation, culture, and high moral values. Formulated policies and funds made available for child-birth, benefits ICT literacy; but, not comprehensively because there are rural areas that still do not receive electricity (National Council of Malaysia, 2003). The school computer literacy program was also affected by a lack of infrastructure and expertise, due to the strong pull of industry (Raslan, 2002) other than the lack of a comprehensive planning Computer-based Learning. There is no emphasis on the use of computers as a medium of learning. The computer literacy program has no continuity.

8.   Analysis and Interpretation of Interviews

An interview approach was chosen to identify issues amongst policy makers and information in implementing the national information policy in this country. A total of four prominent figures, directly involved in the development and implementation of information policy, were interviewed. An unstructured interview technique was chosen, so that respondents could give flexible answers (Robson, 2011).

Even though literature highlights 91 issues of information policy components, in this study, respondents were required to comment on issues related to the policy of information only. Question topics were as follows:

a. The National Information Technology Council (NITC) (Lallana, 2004; Xue, 2005; Ahmad Naqiyuddin, 2008; Tengku Mohd Azzman, 2008).

b. National IT Agenda (NITA) (Lallana, 2004; Xu, 2005; Tengku Mohd Azzman, 2008).

c. Multimedia Super Corridor (MSC) and Multimedia Development Corporation (MDeC) (Lallana, 2004; Xue, 2005; Tengku Mohd Azzman, 2008).

d. Communications and Multimedia Commission (Lallana 2004, Xue, 2005; Ahmad Naqiyuddin, 2008a).

e. Government information (Smith, Fraser & McClure, 2000; Rowlands, Eisenschitz & Bawden, 2002; Smith, 2004; Arnold, 2007).

f. Library and information services (Wijasuriya, 1979, 1981; Oli Mohamed, 1991; Abdus Sattar, 1993).

As a result of the interview, it was reported that no literal written statement existed, instead respondents reported based on their interpretation of the author in accordance with a qualitative research (Samuel, Saratha & Marohaini, 2001).

i. The National Information Technology Council (NITC)

The National IT Council (NITC) is a national level information technology-related coordination body, chaired by the Prime Minister, and composed of several relevant ministers and representatives from the private sector. The NITC is recognized as the central agency responsible for coordinating a policy forum for information, that is comprised of all heads of agencies or ministries responsible for Information and Communication Technology (ICT); including the Ministry of Energy, Water and Communications (MEWC), Ministry of Science, Technology and Innovation (MOSTI), Administrative Modernisation and Management Planning Unit of Malaysia (MAMPU), and non-terraced agency ICT, as an Economic Planning Unit (EPU).

Although the NITC is a forum across all government agencies, it often overlaps at an operational level, particularly with the implementation of the National Information Technology Agenda (NITA). However, this body no longer has an alleged role as a policy coordinating agency, because the uncoordinated ICT component was placed under two different ministries in 2004. NITA and MSC were placed under the Ministry of Science, Technology, and Innovation (MOSTI), whilst the communication component of the Communications and Multimedia Commission (MCMC) was placed under the Ministry of Energy, Water, and Communications (MEWC). ICT components separating their actions under the supervision of different ministries, was regarded as a backward step; whilst the convergence between IT and communications began in 1998. This is particularly troublesome when the government wants a memorandum of understanding or ICT-related cooperation with countries that have merged their communications and information technology. In this regard, the Malaysian government is represented by two ministers (i.e., MEWC and MOSTI) for signing an agreement. The same thing happened when the Malaysian government sent delegates to conferences or meetings, such as The International Telecommunication Union (ITU) and other conferences related to ICT. Due to the separation of IT from communications, Malaysia did not get a return from the investment made, in addition to wasted resources; whereas a good management of return was achieved by Korea and Finland. In addition, demographic factors and disorders amongst political

parties, leaders, and public officials, also has an impact on the separation between IT and communication components.

Even though the separation of IT and communication components was a waste, the separation between the two sectors facilitates the administration of utilities under one ministry. Part of communications, under the responsibility of the MEWC, was also responsible for water and energy utilities, whilst IT was the responsibility of MOSTI, for the development of local content. For example, the Multimedia Development Corporation (MDeC) is responsible for national digital content development, ICT, and R & D in the development of cyber security. Separation of parts of communication, enable IT to focus on the infrastructure development of MEWC, whilst the Commission enforces telecommunication networks.

ii.   National Information Technology Agenda (NITA)

National Information Technology Agenda (NITA) and the Multimedia Super Corridor (MSC) are major policies associated with the national information policy. NITA was built as a framework, in order to see ICT as a catalyst for an information society and the MSC works to make ICT a new sector for the development of economic sectors.

The information policy of this country is incomprehensive when viewed from the perspective of academic disciplines. A comprehensive policy needs to cover items such as library information from the disciplines of science, computing, telecommunications, and the broadcasting of multimedia. Moreover, there is no official document that can be referred to as the main information policy. Although the policy documents do not exist officially, the components and coordination between existing agencies occurs on an ad-hoc basis. Amongst the components and existing coordination bodies are MDeC, NITC, MSC Implementation Committee, Communications and Multimedia Commission, and the Cabinet Committee on Broadband connection. Therefore, the government should establish a policy framework to integrate holistic information and agency information-related components.

A holistic information policy should be governed by a national governing body. Aspects of communications and information should be placed under the auspices of a ministry to emulate the practices of Singapore, where all components related to information, including the library, are placed under one ministry - unlike Malaysia – where relevant information is placed under the responsibility of different ministries. For example, in 2004, components of communication under the Ministry of Technology, Water, and Communications (MEWC), and libraries under the Ministry of Culture and Heritage (MCH). However, beginning in 2010, communication components and libraries fell under the Ministry of Information, Communications, and Culture (MICC), whilst information technology components remained under the Ministry of Science, Technology, and Innovation (MOSTI). Therefore, creating a special ministry in connection with information can be regarded as a critical need in Malaysia.

Although no official document of an overall information policy exists, Malaysia has a policy in spite of this fragmented information that can be used. The National Information Technology Agenda (NITA) is implemented at federal level through separate ministries and departments, and its implementation depends on leadership at ministerial and departmental levels. With a dynamic leadership, the ministry or department has a good implementation. However, not all leaders (i.e., ministers and the Secretary General) have a deep knowledge of ICT. Most of these leaders come from an older generation. Different skills and understandings amongst ministers cause the NITA program's implementation to depend upon the commitment and discretion of the minister and chief secretary of the ministry. Furthermore, some government officials do not understand the importance of the MSC and the NITA program. For example, the government determined that each department should appoint a Chief Information Officer (CIO) but this was not carried out by many ministries.

iii. Multimedia Super Corridor (MSC) and the Multimedia Development Corporation (MDeC)

a) MSC

In 1996, the Prime Minister of Malaysia launched the Multimedia Super Corridor (MSC) as the primary mechanism for achieving Vision 2020. MSC is a strategic program related to information after NITA. If NITA focuses on social development, the MSC makes ICT an industry sector aimed at economic development. MSC is an attempt to develop a dynamic industrial cluster that aims to produce multimedia products and services based on innovative ICT. MSC serves a developing world-class technology environment, to attract world-class companies to help turn Malaysia into an information-based society. Furthermore, MSC was not produced from ideas and pressure from within the country, but as the result of government negotiations with McKinsey to create "Malaysia Utopia," and thus become the first NITC project.

b) MDeC

MDeC is the government agency responsible for national digital content development in Malaysia. However, the current development of digital content in the country did not achieve success. Digital content creation companies are not keen to invest, due to a lack of highly skilled graduates. For content issues, awareness, and a concerted effort from the entire government to technician level policy makers, needs to be implemented. At school level, in addition to providing computers, the government must also provide appropriate content for students to achieve children that are independent and creative, who can adopt a content or information sharing culture through educators.

iv. Communications and Multimedia Commission (MCMC)

MCMC is a supervisor and law enforcement agency, Communications and Multimedia Act (CMA) 1998 relates to cyber laws that monitor the communications and multimedia industry. Activities and services that were governed by the CMA (in 1998), included traditional broadcasting, telecommunications and online services, facilities and networks used to provide such services, and content delivered through facilities and networks. At the time, this act enacted input from local experts, were at a minimum. The CMA 1998 was adapted from a third party consultation with Dr. Terrence Austin Cutler. Cutler & Co, Australia was immediately appointed to the MSC International Advisory Panel in 1998. Acts similar to the Australian government were offered, but rejected. The CMA 1998 was an Act relating to merger, but could not be implemented, because the technology bandwidth could not support the merger of ICT. The Malaysian government adopted a legislation to prove that the country had Cyber Law, CMA (1998), and a Bill of Guarantees to support the idea of the MSC.

v. Government's Information

To form a government that is transparent, authorised person must be given the right to access to official document that is either secret or of confidential status after reclassification. The 1972 Official Secrets Act, but Section 3 (3) of the CMA 1998 declares that none of the provisions under the Act occur, which allows any filtering of information. However, reclassification of confidential documents are not practiced by the people implementing the policy. This contributes to a difficulty in obtaining documents. In addition, information such as charges, specific procedures for obtaining licenses, fees, processing online applications for scholarships, and the application of government services, is difficult to retrieve and thus does not help improve people's living standards and comfort.

Many government's information is difficult to access as is not available online. Problems arise from the operation and implementation of turbulent attitudes of government employees. Although in principle, the more information is disseminated to the people the better, in practice, government officials are too careful to manufacture information. Government officials always make sure that information produced is not a problem, which ultimately raises their burden. Some government

officials tend to work in an environment where people do not have a lot of information, because the government thinks that if a lot is known about the government, it will be detrimental. Therefore, government employees tend to view that government information should be disclosed as little as possible to the public.

Official websites of government agencies are not updated and do not provide information. This should be attributed to staff, which do not understand or practice the concept of information lifecycle. Factors contributing to this situation include:

a. Some ministries have yet to embrace IT to disseminate information.

b. The ability of public departments to disseminate information in a consistent and continuous manner is yet to reach a satisfactory level.

c. Officers are over cautious with information to be disseminated. Extra precaution has to be taken to ensure only permittable information are disclosed.

d. Information handling requires special skills and training.

e. Officials believe that the government information dissemination does not really benefit either individuals or departments.

Failure in providing information at the right time is partly due to cultural factors. Documenting information is not part of the culture in this part of the globe unlike in the U.S. where government's information can be retrieved quickly and easily, as a strong documentation culture exists. Apart from poor documentation, most government agencies in this country prefer to only implement normal day to day operations.

To improve access to, and the dissemination of information, the government has embarked on e-government initiative but to date a fully electronic government has still not been implemented as the initiative involves complex applications. E-government will not be fully in place because whenever majotiry of the civil servants are not IT competent; especially those from the senior rank.

vi. Library

The national library must play a role as an agency to prepare and supervise the country's information matter. However, the government did not give serious attention to the affairs of the library, which ultimately affected the formation of an information policy. These problems include the administrative jurisdiction of different libraries. Some state libraries are under the administration of the state government, whilst others are under the administration of the local council.

Public libraries also have infrastructure problems, especially for recent information. The library information infrastructure needs a National Cataloguing System and Ubiquitous Library (as a resource centre that crosses borders, allowing people to borrow and return materials from any library in the country) to provide better information services.

The government is also developing an initiative, known as MYLIB (pilot project of the National Digital Library Initiative, which became one initiative MSC). MYLIB is intended to promote the delivery of information and knowledge effectively and cheaply to the public, in line with the objective of making an information society, whilst working to provide local content to the internet. However, the absence of a representative implementation of the national library as a member of the NITC is questioned. Libraries continue to separate themselves from the main stream of national information, and assumes that library science is not a component of information policy. This occurs not only in practice, but researchers do not connect the library with information, following a study by Sajjad on policy in 1996. However, policies have been proven to be related to library information, as examined by Wijasuriya in 1979 and 1981. After a study by Sajjad, information policy focus moved to IT and the Internet, as researched by Ramli (2001); Mashkuri et al. (2002); International Telecommunication

Union, (2002); and Xue (2005), and the regulation of content (Madieha, 2004). Policy information is no longer anchored to information, but is rather a device or technology to process, manage, administer, and control information. Libraries whose membership is placed under the Ministry of Culture and Heritage (KEKWA) are not entirely accurate. KEKWA is a ministry of history, culture, arts, and heritage; whilst the information society concept is anchored to a library of future society that is progressive and dynamic.

A New Information Policy model
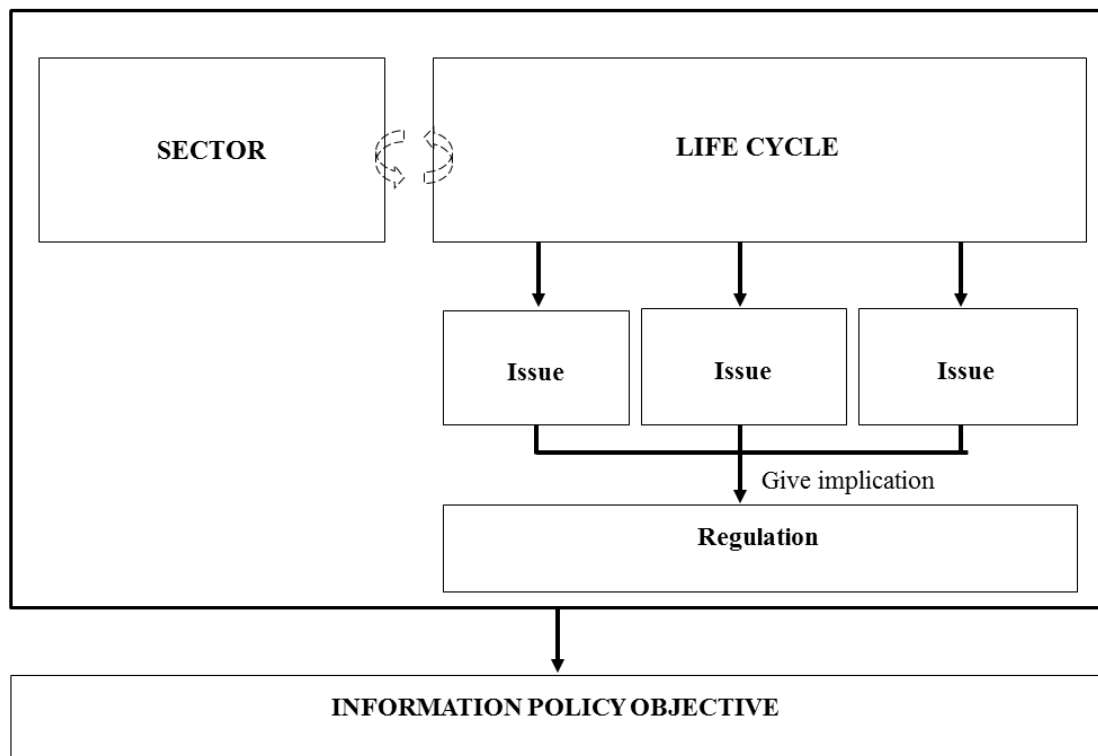
Figure 1 an Intergrated Information Policy Model

Figure 2 below shows one of the sectors in information policy i.e. social sector. Information in the social sector expands by involving life cycle that comprises of creation, dissemination, and maintenance. In the creation process, several issues such as personal information processing arise. Information dissemination process, on the hand, involves security issues. Whilst the maintenance of social information process leads to personal information storage. These issues requires various laws such as Personal Information Protection Act 2009. The social information policy has a distinct goal i.e. to support the economic growth based on knowledge and also the formation of knowledge society.
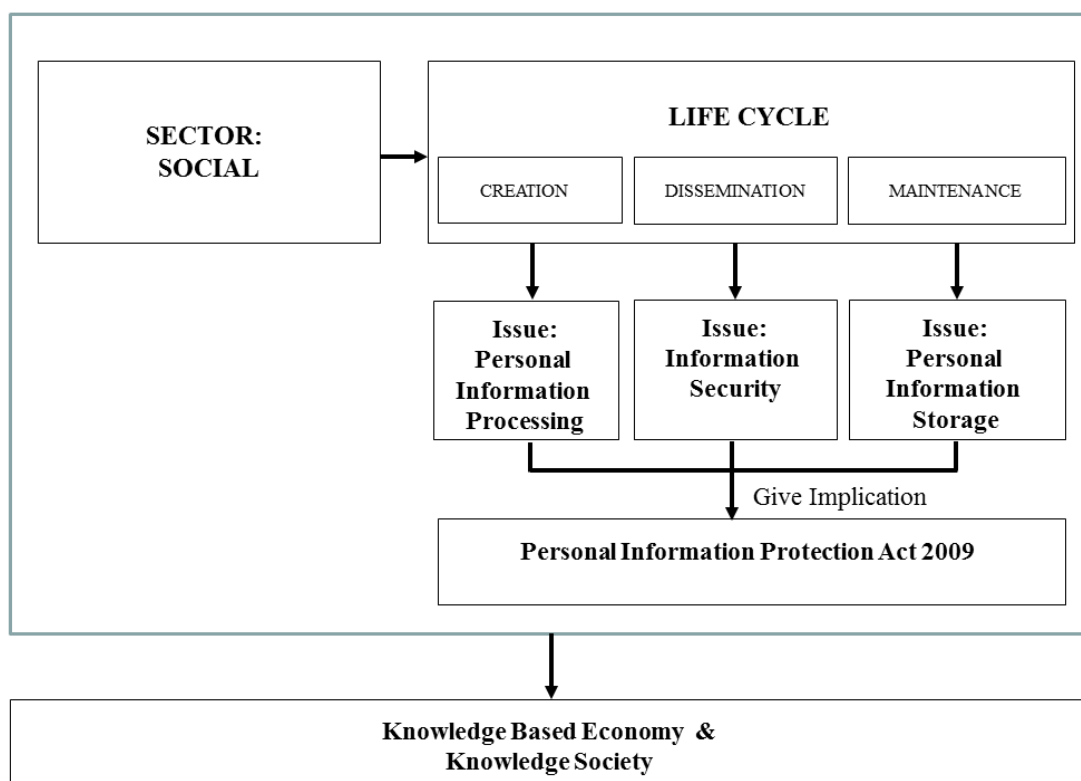
Figure 2 Information Policy Model for Social Sector

This paper also identified another five potential sectors to be included as information policy sectors in future. These are agriculture, tourism, international relationship, health and national security. The main and the potential sectors in information policy are shown in figure 3.

Information Policy Main Sector		Another Potential Sector	
Classification	Issues to be Address	Classification	Issues to be Address
Technical & Scientific Information	• Scientific R&D grant • Integrated ICT Infrastructure • …	Agriculture	• •…
Library	• Information cycle • Information system • …	Tourism	• •…
ICT	• Digital gap • Information highway • …	International Relationship	• •…
Social	• Informed society • Personal Information Safety • …	Health	• •…
Government	• E-Government • Access to government information • …	National Security	• •…
Economy	• E-Commerce • Information Industry • …		

Figure 3 The Main and the Potential Sectors of Information Policy

In the proposed integrated information policy model, specific laws and regulations are now shown as it will result in a long list. The model shows the information life cycle in the specific information policy sector yielded new issues and requires specific law to handle. For example, the information life cycle in government agencies broached up egovernment issue which requires specific laws such as Act 680: eElectronic Government Activities Act 2007. This continues to proliferate concurrently with the socio-economic growth of the nation.

9. Discussion

Although interest in 'information' has been available for the past 30 years, the development of an information policy has not been done systematically, but reactively when it comes to certain issues or pressure from authorities and interest groups. However, the pressure received by the government on issues of information is not strong enough to allow for information policy development efforts to be structured.

Policy is not coordinated, and is a waste in terms of duplication and a widening gap of providing information. Coordination is not easily implemented, because it takes commitment and cooperation at the highest level of government agencies and all parties affected or impacted by national information policy.

NITC is a body (or agency) that is responsible for administering information policy matters. NITC manufactures a wide range of policy ideas received from the departments of various ministries, which are then translated into the form of programs and initiatives. The framework produced by the NITC includes policy decisions at national level, the strategic function, and policy coordination and integration. At national level, the NITC helps in terms of program design and initiatives, including a tactical function and cross-sectoral coordination initiative. However, NITC functions are increasingly irrelevant.

Support for an information policy is also constantly changing. The basis of information transfer is from one ministry to another or from one department to another. When under MIMOS, NITC had 30 full-time professional staff, thus making it a significant body of NITC policy information. However, the NITC is now only a part of the ICT Policy Division, of the Ministry of Science, Technology, and Innovation (MOSTI), without a special secretariat.

Some scholars believe that the basis of information does not need to be comprehensive and coordinated, and therefore, it is not possible to achieve a single coherent information policy. This is because the basis of information is often formed to address specific issues that emerge at different times; and thus, the basis of information is developed in a piecemeal fashion. For this reason, the basis of information cannot avoid being apart, overlapping, or sometimes, being contradictory with previous policy.

Malaysia's information policy is more focused on information technology and communications with providers and operators, whilst ignoring the component of information services (i.e., libraries). This factor is contributed to by a limited understanding of information policy developers and policy makers. Policy makers remain self-centred self and are not able to understand the implementation of a comprehensive policy, and thus, appreciate the diversity of stakeholders or interested parties.

The basis of information, with reference to NITA and MSC, is in the form of a common framework. This policy is contrary to Birkland (2005), who insisted that policy is a statement by the government on what to do, the law, regulations, rules, controls, decisions, directions, or a combination.

The approach and information policy development pattern of Malaysia, is implementing a formal approach, as used by the British government. The British government is aware that such an approach is less convenient, as it is prescriptive and rigid. Instead, the approach is more appropriate to involving the development of strategies, actions, and responses, to specific issues that can be observed, evaluated, and modified, based on changing requirements. However, the British approach has also been adopted by the US government. The basis of information is formed bit by bit, decentralized or separated, and formulated without a comprehensive perspective of information processing.

Even though the history of information policy shows a fragmentary approach that is developed gradually, scholars in this field began calling for a coordinated information policy, since the early 1970's. The Rockefeller report underscores the need for a national information policy to coordinate the many questions arising from the development of computer technology and communications, economic shift from production-based information, and people for the right to claim and control information. According to Orna (2008), development of a national information policy should be coordinated centrally by an advisory committee, consisting of representatives from the private sector, local government, academics, and professionals from the discipline of Library and Information Science. This proposal was established through the belief that the development of an information society should be based on information from the jurisdiction of Library and Information Science.

Development and implementation of policies and strategies is an important set of coordinated information, because society is composed of many different aspects that are inter-related with each other. Approach and calls for a holistic analysis of information policy continues to this day, voiced by scholars such as Wilkinson & Nilsen (2010) and Trosow (2010). Trosow even produced a model that sees policy as holistic information, but is different from the model produced by the author.

If developed countries make information fundamental to the formulation of an information policy, Malaysia has made IT central. Malaysia feels the need to have basic information on the country, in order to implement the idea of an electronic government (e-government) - IT applications need to be done in every aspect of management and administration, to improve the quality of services, particularly in the public sector. IT applications enable the sharing of information and knowledge that ultimately affects employee performance in increasing the production of work, knowledge and skills, personal qualities, and relations of cooperation both in and outside of an organization. Awareness that

the government acts to formulate policies to guide, monitor, and evaluate, the effectiveness of using IT to create, control, maintain, use, and disseminate information. However, aspects of information management are not particularly emphasized. Preference is given to IT as having a significant impact compared to Library and Information Science, which is seen as less relevant to the progressive development of the country. Basic information, such policy development, does not follow the convention adopted by developed countries.

MIMOS, establishment in 1985, became the starting point of information policy development that was anchored by IT. IT dominance in information policy culminated in the establishment of the NITC, which continued to carry the MSC and the NITA. NITC is a non-representative membership from the field of Information and Library Science. As a result, the roles of information and libraries were marginalized in the formation of a national information policy. Issues that form the basis of information, including information society, continue to be led by scientists and technology professionals; when those in Information and Library Science are familiar with the information requirements of a State for the development of an information society.

IT is seen as a catalyst for national development and the construction of the Multimedia Super Corridor, which stretches from Kuala Lumpur International Airport (KLIA) to the Federal government's new administrative centre in Putrajaya, and is supported by a physical infrastructure and world-class information. In addition, the ICT infrastructure is equipped with state of the art equipment.

However, the above-mentioned policy cannot be implemented properly, due to bureaucratic delays. NITC secretariat was transferred from MIMOS to MOSTI, the restructuring of components of ICT policy and the Ministry of Energy, Communications, the Ministry of Energy, Water, and Communications, NITC (who are coordinating the national IT policy), is seen as failing to act effectively.

Besides not having a single document that can be regarded as a national information policy, Malaysia places no emphasis on management policy records, particularly information on an organizational level, compared to records associated with efficiency, transparency, accountability, and democracy. Records, as a class of their own information, are increasingly being recognized as a critical strategic asset in the decision making process, developing and driving organizational action to control, and apply resources to achieve objectives. Without an organization's strategic management plan, this may conflict and not record the outline as a basis.

History has shown that information is best used for the formation of an information policy. Countries need to be clear about the information that is produced, owned, and accessible. Information held should be organized. ICT cannot be viewed as a solution to the management of information, but only as a tool to facilitate information management. A technology-centred approach must be avoided. Experience shows that good information management provides many benefits and should remain as a top priority to an organization's operations. All of these need to be clearly stated in an organization's information policy.

10. Conclusion

Malaysia cannot be initially seen as having any official document that can be viewed as a national information policy, but it does have a policy relating to the library. The development of IT has pressured the government to change the state of its information policy formulation. The basis of information excessively emphasises IT without taking into account the role of information. Policies are designed to support the achievement of certain periods of time, until there is an opinion stating that the Vision 2020 policy agrees with the basis of information policy objectives. If this claim is true, then Malaysia only has a policy that follows information led by the Prime Minister. The claim is fixed to the nine challenges that must be achieved by 2020, where every challenge has its own policy. Therefore, policies are designed to support the achievement of that vision. For example, policies and guidelines related to issues of the media, broadcasting, and filtering, are built to ensure that

information can be accessed by the public. On this basis, the Vision 2020 document is a general framework for the underlying national information policy. In fact, the basis of information is more than just a statement about the future to be achieved. Policies also need to provide information on the methods of previous solutions.

Policy should be cross-discipline information. Even though the country gives priority to ICT for its increased development, information cannot be seen. Therefore, library and information sciences are particularly significant in the development of an information society, because society should be anchored by a strongly integrated information base.

An information sector, dominated by library and information sciences, is still relevant in the development of ICT policy, in an era of information; despite the economic aspects of policy objectives that are suited to the support of modern information and a knowledge-based economy.

The formation of a national information society requires a paradigm change, particularly in economic activity. Economic activities should be based on information and the use of technology. In order to achieve a developed status, national leadership requires information to be emphasized, because they believe that information is an important commodity for the future. Information is seen as an important ingredient for achieving success, and is a prerequisite for a successful business sector, in an international arena.

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