ICT, the New Media (Internet) and Development:
Malaysian Experience

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ABSTRACT

The mass media in Malaysia has been encouraged to work with the government in mobilizing the people towards achieving national development objectives. Apart from the role that has been played by the traditional media, Information and Communication Technology (ICT) is now the focus to lead Malaysia in the new era of globalization and knowledge and consequently development. Development policies are crucial in guiding and laying the foundation on which the new media (Internet) can operate to bring about or accelerate development.

*Keywords***:** the new media (Internet) and development, ICT policy, benefits of the new media.

Introduction

In Malaysia the role of the traditional media in development has been very prominent. For example, after the establishment of National News Agency (BERNAMA) in 1968, it became the bridge between the government and the Press, and in process got a clearer understanding of the government (Safar, 1998, p. 58). Apart from the Press, the government in Malaysia uses the electronic media, TV in particular, to bring about national development by championing the national aspirations (Samsudin, 1998, p. 82).

The Internet or the new media is the world's largest interconnected environment. It is the most recent communication tool of the world where a user can transcend borders and have access to the encyclopedias, newspapers, bulletin boards, video arcades, hypermalls, broadcast stations, the movies, grapevine, travel agency, and mail order - all at one stop, in a global village (Rahmah Hashim, 2001, p. 72). With the advent of the New Media (Internet), the government is faced with the challenge of how it can be used to enhance national development. The new media allows interactivity coupled with the fact that it is difficult to be controlled and monitored as compared to the traditional or conventional mass media. The new media and ICT in general are seen as a means to speed up and accelerate development if applied properly.

The Malaysian Government has realized this potential of the new media and ICT and is thus doing everything possible to maximize the use and reap the benefits. Government policy is very important to help utilize the ICT innovation to bring about development. Because of the Internet, it is easy to order any merchandise from the other side of the planet. However, the new media is seen with suspicion and distrust by some of the adopters. The Internet in particular has been blamed by some sectors of the society for promoting immorality. It must be noted that despite what people see as shortcomings of the new media, there are still benefits that can be derived from it. The Internet is seen as the most dynamic mass media in this century. Its interactive nature has attracted people from all walks of life. Unlike its predecessors like the TV and radio, the Internet is also a storehouse of knowledge providing access to huge pile of information.

The New Media as an Engine for Development in Malaysia

Apart from the role that is being played by the traditional media, ICT is now the focus to lead Malaysia in the new era of globalization and knowledge. To achieve the status of a regional Information Technology (IT) hub, the government has put in place the Multimedia Super Corridor (MSC) covering an area of 15 kilometres wide and 50 kilometres long covering Kuala Lumpur City Center (KLCC) in the north and the new KL International Airport (KLIA) in the south (Ariff and Goh, 1998, p. 9; Samsudin, 1998, p. 83). Located within the Corridor are two cities known as Putrajaya and Cyberjaya. Putrajaya, the new headquarters of the Malaysian Government, is known as an "intelligent city" because it has all the latest facilities for the Information Age, and it uses information technology to help modernize the system of government and administration, (known as "electronic government"). Cyberjaya is the base for some of the world's largest and most innovative multimedia companies, which are expected to set up their manufacturing or creative centres, use the most sophisticated multimedia technology to manufacture their products and provide services for the global market. It is also planned to accommodate universities, smart homes, smart schools and several research and development (R&D) centres (Ariff and Goh, 1998, p. 10). The smart concept as used by Malaysian government means the use of ICT in daily routine.

Under the MSC seven pilot applications, known as "Flagship Applications" have been identified. These seven pilot applications are Electronic Government, Multi-purpose Card, Smart Schools, Telemedicine, Research and Development (R&D) Cluster, Worldwide Manufacturing Webs and Borderless Marketing (Ariff and Goh 1998, p. 11). The Multimedia Development Corporation (MDC) intends to scale up its technopreneur development flagship (TDF) under the Ninth Malaysia Plan (9MP) to accelerate the growth of local technopreneurs and create a more sustainable information and communications technology (ICT) industry in Malaysia (Computimes, NST, May 16, 2005, p. 3). The final aim of this move is to groom MSC status outfits, which can eventually develop into MSC global company.

Malaysia has already started to reap the benefits of its huge investment in the ICT sector through the establishment of the MSC. The MSC is reported to provide or make available some 10,000 technology jobs (Computimes, NST, April 11, 2005, p. 2). This is based on a recent survey by the Multimedia Development Corporation after identifying several disciplines that are highly sought after by companies in the corridor. These job opportunities are not only limited to people with ICT qualification but also those with good command of the English Language. Thus the ripple effect of ICT is generating employment for other people from different disciplines and in so doing helping to bring about economic growth. In addition to generating employment and other benefits in Malaysia, the MSC, is poised to move its firms beyond local shores. The Multimedia Development Corporation (MDC) plans to create a pool of MSC – status companies with the capability to sell their information and communications technology (ICT) products and services globally over the next five years (Computimes, NST, April 28, 2005, p. 3). MDC hopes to produce at least 250 companies with international status.

Apart from North America and Western Europe, Asia Pacific ranks third in Global ICT spending with a projection of 761, 215.3 million by 2006 (Computimes, NST, April 11, 2005, 2). This region's investment in ICT is quite enormous and this shows the importance the

governments and the people attach to ICT. Perhaps this is based on the belief that the ICT sector will be the engine that will spur development in other sectors of the world economy and Asia Pacific doesn't want to be left out. The Malaysian government's ICT spending is quite high in relation to its neighbours considering the population of Malaysia. In 2004 the Malaysian government spent RM521.3 million and this increased to RM590.8 in 2005 (Computimes, NST, March 24, 2005, p. 2). Indonesia and Thailand, for example spent 841.3 and 680.1 respectively in 2005. This shows the realization by the Malaysian government that ICT is an important engine for growth and development.

The Malaysian government will make progressive payment to Telekom Malaysia (TM) for its RM2.4 billion portion of the RM11.31 billion High Speed Broadband (HSBB) project, according to the Deputy Prime Minister Datuk Seri Najib Abdul Razak (Bernama News 2008). The HSBB project involves the deployment of the access, domestic core and international networks to deliver an end-to-end broadband infrastructure.

The private sector is not left out in this development. This is evident in its revenue. Association of the Computer and Multimedia Industry (Pikom) was confident of achieving revenue of RM80bil by 2012 as against RM40bil in 2007 (The Star Online, 2008).

The technology initiatives by both the government and the private sectors are expected to contribute to growth in the local personal computer (PC) market. The government's push for IT literacy in education, such as smart schools and e-Government in particular, is expected to contribute to a steady growth in the PC market (Computimes, NST April 28, 2005, p. 2). With the increase in PC ownership, there is likely to be an increase in ICT use and the aim of the government to use ICT for development will thus be facilitated by diffusion of personal computers.

The recent directive by the Prime Minister of Malaysia to increase Internet content in the national language (Bahasa Melayu) is a proof that the government attaches importance to ICT (NST, March 30, 2005, p. 4). According to the Prime Minister, Internet content in the national language will help minimize the digital divide between rural and urban folk. Lack of English is a deterrent to the use of the Internet and ICT among the rural folks. The persistent issue of digital divide in Malaysia is expected to be addressed in a more comprehensive manner with the completion of the National Strategic Framework for Bridging the Digital Divide at the end of October 2005. The Framework aims to provide strategies through which the benefits of information and communications technology (ICT) can be experienced by all levels and members of the society (Computimes, NST, May 23, 2005, p. 2). This can further give momentum to the country's aspiration to become a fully developed nation by 2020.

There is a move to provide E-services at local authorities in Malaysia. The housing and local government ministry (MHLG) is targeting for all 144 local authorities in Malaysia to offer e-government services to its customers under the ninth Malaysia Plan (Computimes NST, April 11, 2005, 3). Some of the Municipal Councils including Subang Jaya, Petaling Jaya, and KL City Hall are already practicing e-submission of forms, e-payment of taxes and license renewal, facilitating e-community as well as making available a lot of information through their web sites. To complement the government efforts in providing ICT services, local ICT companies are helping the government improve efficiency through imaging technology (Computimes, NST

April 28, 2005, p. 4). The technology helps improve processes and workflow, and ultimately an organisation's overall operations. Imaging technology can also improve service delivery from the government to customers either businesses or citizens. However, the efforts made by the government and the private sector in pushing ICT through, has been slowed by the lack of confidence among ICT users. Consumers are still hesitant about using the Internet as a shopping channel. Issues such as privacy and lack of confidence and trust in online retailers need to be addressed so business-to-consumer (B2C) e-commerce can fully realize its potential in Malaysia (Computimes, NST, May 16, 2005, p. 2). Despite the lack of confidence in ICT by consumers, information and communications technology revenue arising from business-to-business and business-to-consumer segments in Malaysia are set to increase by almost nine-fold from US$1.5 billion in 2002 to US$9.4 billion this year, with B2B making the biggest strides (Computimes, NST April 28, 2005, p. 3)

However, adoption of ICT among small and medium-sized industry (SMI) or businesses is still low in Malaysia and raises concern about their ability to stay competitive in a global market. According to SMI Association of Malaysia, only 30% of the community possess a web presence and use ICT persuasively in their business (Computimes, NST, April 11, 2005, p. 5). The association is embarking on a number of activities to encourage its members to adopt ICT, which include the setting up of a call centre.

The rural folks in the country are not left out in the move to increase the use of ICT (or Internet). More facilities will be made available to rural folks under the Government-initiated Rural Internet Centre (RIC) programme (Computimes, NST, April 14, 2005, p. 4). Under the e-government facility, rural folks will be encouraged to use the Internet for online transactions such as bill payment. This will go a long way to provide the push for small and medium-sized business (SMBs) in rural communities to use e-procurement application when conducting business with the government. Development of the rural communities will thus be expedited by connecting them to the centres of production and business through ICT.

As is always the case, any new technology or innovation is subject to abuse, which may affect its continuous adoption (sustainability of use), thereby making its impact less felt or its potential or benefit less realized. It is against this background that laws and regulations are crucial in order to monitor the use of innovation and prevent it from abuse. Laws and regulations will instill confidence in the people who use the innovation. The Personal Data Protection (PDP) Act is to be launched soon to enable a more secured environment for electronic transactions. The legislation aims to regulate the handling and use of personal data by any person or organization, and to establish common rules and guidelines on the handling and treatment of such information. According to KPMG the legislation is necessary because it will be able to assist in balancing individual privacy rights against public and private rights (Computimes, NST, April 14, 2005, p. 4). Security is also of great concern to ICT experts. According to the Cyberlaw Unit of Multimedia Development Corporation, e-documents would fall under the purview of the Contracts Act 1950. The Electronic Commerce Bill (ECB), which is in the process of being drafted, is expected to facilitate electronic dealings by providing legal certainty and expressing legal recognition to e-documents (Computimes, NST, April 28, 2005, p. 5). The ECB is expected to ensure that Malaysia's position is consistent with countries that have adopted the principle provisions of the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce.

Despite the government's efforts in providing the necessary infrastructure and support for ICT, companies still do not pay attention to the latest information technology systems (NST, May 15, 2005, p. 7). System administrators must pay attention to the latest technology or else they may lose customers who would like to do business with them and thus loose out from gaining the benefits of ICT for development.

The Importance and Role of ICT Policy

Without a well formulated and sustainable ICT policy, the impact of ICT on development will not be realized or felt. It is therefore crucial to bring about awareness and understanding of the potential impact of ICT for development and economic growth (beyond the hype and political correctness). ICT for development is a priority for national governments as well as global and regional organizations. For example, in Vietnam, dot-GOV has contributed to the competitiveness of the software industry and increased the understanding of the government on World Trade Organization telecommunications requirements and the EU convention on cyber crime (Tisch, 2005, p. 11).

The national strategy of any country, among other things, should delineate the role of private sector, Civil Society Organizations (CSOs) and Government and provide a road map for harnessing the ICT for addressing the development problems being faced by the country (Joseph, 2002, p. 12). The identification of the specific roles may be based on the nature of services. Those services that are in the nature of public good may be better provided by the state or the NGOs, whereas the services which are in the nature of private goods may be better served by the private sector. In devising such a national strategy, the role of inputs from pilot projects if there are any, in terms of lessons learned cannot be discounted. Such a policy has to be based on a realistic assessment of what ICT could do in the given socio-economic environment.

Political will is another important factor in moving the ICT policy forward. A stable policy reform environment (without reversals or extensive delays) is ideal but rarely achieved. Political will is the most important driver of policy change. Political will is stimulated by stakeholder groups voicing their needs for policy change. In some countries, dot- GOV has focused on work with the private sector so that the government is more aware of the ICT business sector's needs, and that businesses are aware of issues confronting the government (Tisch, 2005, p. 14; Clarke, 2003, p. 13). In Malaysia, for example, ICT collation on e-government is being formed to translate political will into action among stakeholders. These stakeholders will include the government, but also the business sector and civil society groups. In Indonesia, an informal group of policymakers and academics were able to compromise on electronic transactions legislation that has a provision for electronic evidence, which will be helpful in prosecuting cyber crimes (Tisch, 2005, p. 9).

Another yet important factor is Multisectoral collaboration. The active participation of civil society and the private sectors ensure a strong partnership to sustain a policy process (Clarke, 2003, p. 14; Tisch, 2005, p. 15). For example, dot-GOV works closely and collaboratively with a wide range of local stakeholders, including current and potential Internet users, Internet-related businesses, and telecommunications service providers, NGOs, government officials and foreign experts. In Romania, Rwanda, Macedonia, and throughout Africa (the

NetTel project), local partners are the stakeholders that will continue the dialogue on policy reform with the government. This participation must be regular and focused, and is often best achieved by an NGO coordinator who has good credibility with government, business, and civil society organizations as a convener of dialogue on a policy issue (Tisch, 2005, p. 23).

Active participation of underserved and under-represented segments of society, including women and minorities is also very important. Inclusion of generally ignored sections of the population can provide buy-in at a higher level within civil society, making the effect of policy processes more inclusive and thereby strengthening them (Clarke, 2003, p. 17; Tisch, 2005, p. 18). For example, scholarships and an effort to involve women in workshops and project activities helps ensure that these groups will have opportunities to participate in the technological and economic advancement of their country. Malaysia is heading in the right direction with the implementation of SMART school and other aspects of using ICT such as the Smart Card (known as MyKAD). It takes a concerted effort among policy makers and practitioners alike to create an environment that enables women, minorities and the under-served equal access to these technologies. By working with Cisco Academies, a set of scholarships for four Asian and three North African countries is providing a group of over 500 women with job skills in the ICT business community (Tisch, 2005, p. 11).

Policy should also be geared towards local adaptation to respond to local needs (no rigid blueprint for reforms). Effective policy reform occurs only with local buy-in and that can only be achieved by paying attention to local needs, local culture, local languages, local sensitivities and local politics (Kwame, 2003, p. 8; Tisch 2005, p. 6). For example, dot-GOV relies on subcontracts to local NGOs, and business associations, and close collaboration with USAID Missions to ensure that local needs are being met. In Malaysia the government has called on all those involved in ICT to develop and increase Internet content in the national language, bahasa Malaysia (NST Computimes 2005). In Thailand, Philippines, and Vietnam, work to develop the software industry through marketing training and study tours to the US has been organized through local organizations and USAID-funded projects to identify the companies ready for specialized training (Tisch, 2005, p. 5).

Local capacity ICT policy reform is an ongoing process rather than a one-time effort. As technology, human resources and social and economic goals change, new policy issues will emerge, and the solutions to existing issues are likely to need fine tuning at the very least (Kwame, 2003, p. 10; Clarke, 2003, p. 12). Policy formulation is a multi-dimensional, never ending process. Policy cannot be static because it is the nature of the ICT sector and the use of technology to be in a constant state of innovation. Technical assistance plays an essential role in helping launch the process and introduce new ideas through training and mentoring (Tisch, 2005, p. 19).

ICT Policy Issues in Malaysia

The Malaysian government has realized the need for policy for the ICT sector. The areas of concern include e-government, capacity building, R&D, infrastructure, digital divide, social and economic development.

The level of public service online delivery has yet to create an impact to the citizens at large. A majority of the public sector's portals in Malaysia act as a medium to convey and disseminate information to the audience. E-Government projects that have been implemented in Malaysia are used to support processes within the government sector such as e-Perolehan, a supply-delivery webpage and e-Syariah, an Islamic law based portal (National Public Policy Workshop (NPPW), 2005, p. 3). The usage of ICT must be fully taken advantage of, in delivering customer-based services to the citizens. E-Government posseses the potential in changing the way the government is organized and will be able to add value into the relationship between the government and the citizens.

Government officers and local industry players particularly the Small and Medium Entreprises (SMEs) are found to lack ICT competencies. The just ended National Public Policy Workshop (NPPW, 2005, p. 20) notes that programs need to be put in place to increase workplace competence by first analyzing workforce requirements. End-user training has to be provided on a continuous basis and there should be increased support towards the SMEs ICT players.

Questions were raised on the issue of Internet Provider (IP) ownership of government applications. The group on R&D raised the issue regarding the significance of learning the success and failure from R&D funded by the government to ensure mistakes are not repeated. The group suggested that a knowledge-sharing channel must be developed to ensure the sharing of this information between the government and the country in order to drive the cycle of innovation (NPPW, 2005, p. 21).

Both the government and the industry collectively agree that there exists a growing need to address the challenges of critical infrastructure assurance. Infrastructure is fundamental to the growth of the economy. But because the country's current infrastructure facilities are designed, built and operated by the private sector, government-mandated IT security must be viewed with caution. As such, collaboration between the government and the industry has to be coordinated and comprehensive (NPPW, 2005, 22). There is also the need for a clause, agreed by consensus by all parties, in order to direct cooperation between vendors with the interest of the nation instead of being profit-oriented. All participants agreed that information security would be the critical factor in driving the technology in infrastructure (NPPW, 2005, p. 23)*.

It was also highlighted that a harmonized working relationship between government and the private sector is already in place and collaborations have been formed together with the Internet Service Providers (ISPs) in the areas of security and shared information. Therefore, instead of competing with each other, the industry is encouraged to collaborate in detecting solutions and loopholes in the areas of information security.

The Malaysian Communications and Multimedia Commission (MCMC), being the nation's key regulatory body, is currently playing a key role in creating and setting mandated standards and policies to address conflicting principles. The government should also play a proactive role to facilitate and determine a timeline for the industry to develop and implement an IT security baseline as a medium to oversee performance standards.

It was conclusively agreed by all that a balance must be struck between the need for privacy and security management and this must be clearly defined by the government without jeopardizing the issue of privacy (NPPW, 2005, p. 23).

The digital divide also termed as Digital Exclusion, as the result of the advancement of ICT has deprived many rural and urban poor communities. Important issues identified by the workshop were bandwidth, the usage of local language and the cultivation of ICT culture within the society. The focus of these issues was addressed in two major contexts-economic development and social development.

The government and industry both highlighted the need to have appropriate infrastructure - hard and soft, to enable users to be well versed in conducting trade safely as well as exchanging information openly. These infrastructures need to be managed effectively. The group also called for a local champion of ICT and suggested that the relevant ministry and other parties play this role.

Discussion also resulted in stressing an urgent need to first review the needs of ICT target groups by employing the integration of bottom-up and top-down approaches, as it is crucial to determine what the target groups need, and to understand how the infrastructures of ICT can assist in their routine tasks. Mentoring services should be provided to these target groups to assist them in monitoring and provide advisory services towards a successful implementation of the project. The government should develop a set of performance indictors to quantitatively assess and measure these projects.

The value behind the utilization of ICT must go beyond its capabilities to do web surfing and sending emails. The workshop suggested the need to leverage on the conventional community centres such as the Village Centre, open food stalls, etc by setting up the infrastructure towards building a form of virtual community interaction areas (NPPW, 2005, p. 20). The industry has been advised to take the lead in developing local content for their usage. The community must cultivate a sense of ownership.

In the aspect of education, usage of computers in schools should be utilized to acquire in depth knowledge and to make learning more interactive. This will not only create awareness at a young stage but will also inculcate technology education in order to obtain a wholesome understanding towards ICT.

The group responsible for digital divide at the workshop made the following recommendations towards Digital Inclusion:

- Audit projects that are already in progress to determine successes and failure. Successes should be replicated and enhanced whereas projects that have not been able to impact the lives of the citizens should be discontinued. It was announced that the Economic Planning Unit (EPU) is currently undertaking the national framework towards bridging the digital divide.
- Constraints such as affordability and sustainability must be considered and addressed prior to mapping the implementation of an application.

- A thorough analysis must be done in order to clearly define the needs of target communities. The success factor of ICT applications in disadvantaged communities used to narrow the digital divide is achievable should these needs be accurately addressed.
- A fully integrated system consisting of infrastructure and info structure that includes ICT enabled centers containing computer labs, tuition centers and incubators at physical meeting areas such as the conventional coffee shop. Applications introduced must be developed with the focus of knowledge sharing in mind rather than technology adoption to avoid technophobia.
- Community education as a whole and publicity is crucial to create awareness on the significance and benefits of ICT.
- A comprehensive and practical policy blueprint must be developed to support the above-mentioned recommendations (NPPW, 2005, p. 21).

Benefits of the New Media (Internet) for Development

The Internet offers various useful tools for communication, among which we might mention electronic mail, the World Wide Web, newsgroups, remote access, file transfer and text-based and voiced-based chat. The net has become the most important e-mail system in the world because it connects so many people worldwide, creating a productivity gain. Organizations use it to facilitate communication between employees and offices, and to communicate with customers and suppliers. Friends and family use e-mail in replacement to snail mail, due to its speed and flexibility.

Information retrieval is the second basic Internet function. Many use the Internet to locate and download some of the free, quality computer software that has been made available by developers on computers all over the world. The only major problem would be finding what you need from among the storehouses of data found in databases and libraries. It is therefore necessary to explain the two major methods of accessing computers and locating files without which the information retrieval function would not be possible. File transfer protocol (FTP) is used to access a remote computer and retrieve files from it. FTP is a quick and easy method if you know the remote computer site where the file is stored. Once a file has been located, FTP makes transfer of the file to your own computer very easy. There are hosts of directories that have been made accessible for FTP to search for files and one can use them to locate files required for operations.

There are also educational resources on the Internet. They are in various forms such as journals and databases on various aspects of knowledge. For example, there are sites where one can access online journals, or learn English (www.englishpractice.com). These sites are of tremendous help to those who are doing academic research. There are also special homepages on special topics or subjects of interest. At the moment, not many people use the Internet for this purpose. It is time we encouraged our students to visit these educational sites, especially the English language ones. This will go a long way to improve their level of English to make them more competitive. There are now even virtual libraries and full degree programs – all available online. As a result of these innovations, already there is for example, the *University of the Web™*, fully accredited, and up and running in the United Sates, with several programs for Bachelors and Masters degrees (Jones International University). And this is just one example of many as a host

of other universities are now innovating to offer Bachelors and Masters Degrees and even research doctoral (Ph.D.) programs online (Leigh, 2004, p. 11).

Commerce on the Internet is already a reality. The communication facilities which are on offer have rapidly become integrated as core business tools. Thus most of the business functions are communicative in nature. The emphasis to date has been on use of the Internet for communications with customers and other companies operating on collaborative ventures. However, an increasing number are concentrating on transactions between businesses and on-line sales. The Internet Mall companies offer everything from books to flowers to travel. It is estimated that over USD 300 billion in goods and services would have been exchanged over the Internet by 2002 (Laudon and Laudon, 2001, p. 24).

There are other benefits such as e-government, e-procurement, outsourcing etc. to be derived from using Internet.

Conclusion
With the necessary ICT policies, the benefits of the new media and ICT can be realized and this in turn can be harnessed for development. The Malaysian government has so far made strides in employing ICT for development. With the MSC the infrastructural support for ICT uptake has been established. The issue of relevance of ICT, for rural areas in particular can not be taken lightly. The government and the private sector must speed up the process of implementing policy suggestions put forward at the NPPW in the middle of 2005 to bring about the needed ICT and thus to meet development goals through ICT.

About the author
Ali Salman obtained his bachelor's degree (communication) from International Islamic University, Malaysia in 1996. He was awarded the Best Student in Public Relations by the Public Relation Institute of Malaysia the same year. Ali completed his masters in Library and Information Science at the same university in 1998. Ali completed his PhD in Communication in 2008, at the National University of Malaysia. He has written articles for Jaring Internet Magazine. He has also presented conference papers and the latest was the AMIC conference in Manila, where he co-wrote a paper with his supervisor. The conference paper has been published by The Journal of Development Communication. His research interest is in communication and the New Media (Internet) and digital divide.

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