

**PERSIDANGAN KEBANGSAAN MENGENAI MASYARAKAT BERMAKLUMAT
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Report from

Session 5: Bridging the Digital Divide

(Thursday, 8th September 2005, 10.30am – 12.15pm)

REPORT OF THE NATIONAL SUMMIT ON THE INFORMATION SOCIETY

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SESSION 5: BRIDGING THE DIGITAL DIVIDE

I. Introduction

- 1.1 The fifth session for the National Summit on Information Society (NASIS) was chaired by Dato Paduka Buntar Osman, Member of the Authority for Information Technology Industry of Brunei Darussalam.

The Chairman commented that there are several issues to be discussed today. Issues such as what is needed to bridge the digital divide and what need to be done to achieve this. He began the session by introducing the keynote speakers and the panelists to the audience.

II. Presentation by the keynote speakers and panellists.

- 2.1 The keynote address, "*Digital and IT Divide: A PwC Perspective*" was delivered by Mr Ambarish Dasgupta, Executive Director, PriceWaterhouseCoopers.

The Digital Divide is a very topical issue which impacts the social-economics of each and every country. It refers to the socio-political gap between communities that have access to computers and the internet and those who do not. It also refers to gaps which exist between groups regarding their ability to use ICT effectively due to differing levels of literacy and technical skills.

Poorer and less developed countries cannot afford or do not have access to ICT and information, these countries are also more vulnerable to natural disasters. Development of content relevant to all sectors of society needs to be provided to encourage internet and ICT use. This will result in the lowering of the price of access.

There is a Knowledge Gap between different sectors of society and a National Interest and Societal Benefit Gap in terms of economic equality, social mobility and economic growth.

E-Government refers to building links between government entities and their users, connecting jurisdictions, departments, customers and locations and involves taking current processes and moving them to networks and shared applications.

E-government issues are:

- i. Security and privacy.
- ii. Payment mechanisms.
- iii. Managing existing and new technical infrastructure.

- iv. Cross agency integration.
- v. Cross jurisdiction integration.
- vi. Public access.

Barriers to e-Government:

- i. Funding.
- ii. Sponsorship and acceptance.
- iii. Staffing and qualified resources.
- iv. Agency collaboration.

Some of these issues and barriers are common to e-Business. Attributes for successful e-Businesses are challenging for Governments to emulate.

2.2 Hazel Ho Ming Yeh, Student, Maktab Duli Pengiran Muda Al-Muhtadee Billah spoke on *“Is there any affordability gap in Internet access in Brunei Darussalam”*

The affordability gap divides those who can afford to pay and access the internet and those who cannot. The gap focuses on the cost of internet access and the amount of money that the majority of people in Brunei Darussalam are willing to pay for the service.

In Brunei Darussalam, internet access is available via dial-up (up to 56kbps), broadband/ADSL (from 256 to 640kbps) and leased line (from 64 to 2048kbps).

The internet has multiple uses: communication, education, business/commercial uses and entertainment. Information is dynamic as it changes by the minute and is now accessible at the click of a mouse.

Brunei Darussalam’s dial-up connection rates are comparable to those in Malaysia and Singapore, however, broadband connection rates are significantly higher than our neighbors. The majority of the working class in Brunei Darussalam considers internet access in Brunei Darussalam affordable while the majority of the student community considers it expensive even with the reduced student prices.

To bridge the affordability gap, schools and colleges should make internet access freely available to all students. Hotspots/wireless internet access can be provided within campuses to students, however, not all students can afford notebooks to avail themselves of this service. Another suggestion, is to allow more ISP’s. This raises the issue of market saturation as Brunei Darussalam has a small population.

The demand for internet has grown in the past years and it is important to make it affordable to everyone.

2.3 Michael Chong, Lecturer, Business & Management Faculty, Universiti Brunei Darussalam spoke on *“Skills gap between younger and older generations – is there any?”*

There is a skills gap exists between the young and the old due to the fact that both generations grew up in different times and technology may not have existed or have been easily accessible to the older generation.

The internet has now become indispensable in our daily lives, we can communicate and find information on any topic freely. However, the benefits can only be gained by those who are able to access it.

To address this skills gap, we must not only look for technological solutions, we must also focus on the human side of the equation. Technophobia in the older generation is a stumbling block. They lack confidence in using technology. It is important to make sure the older generation understands and accepts the benefits that the Internet can bring to their daily lives.

One method of addressing the skills gap is to provide training and access in computer use and also English language proficiency. Their interest and awareness levels also need to be raised, once they find content they are interested in and are aware of the benefits of the internet then they will be more inclined to learn to use it.

The skills gap needs to be addressed as the gap will widen with the introduction of new technology.

- 2.4 Awang Matusin bin Orang Kaya Sura Hj Tuba, Acting Assistant District Officer, Temburong District Office spoke on *“Is there any ICT development gap between urban and rural areas in Brunei Darussalam?”*

Awang Matusin began his presentation by saying that the ICT development gap between urban and rural areas can be clearly seen by using Temburong as an example. There are some areas in Temburong which have no cellular mobile service.

He further added that schools in Temburong were first supplied with ICT in 1998. Now all schools have their own computers which are not used as a teaching aid but as an administrative tool.

Offices started using computers in 1993 and ICT use in daily office use has increased since then. He also mentioned that most households own at least 1 computer and the younger generation are familiar with computer use mainly through the use of computers through computer games. Furthermore, most ICT users in Temburong only possess basic skills due to the difficulty in access to technology and lack of skills training.

- 2.5 Ms Ang Ley Hian, Senior Telecoms Engineer, Telecommunications Department spoke on *“Building affordable Internet infrastructure – How?”*

Four main issues were discussed:

1. Internet tariffs – Brunei Darussalam compared to other countries

Brunei Darussalam's rates are comparable to Singapore and is actually cheaper than Australia and the United Kingdom. In terms of Gross National Income, Indonesia and Thailand's tariffs are higher than ours.

2. Internet pricing

The Ministry of Finance has indicated that 60% of the BND5 billion worth of debts are credit cards and personal loans. This may be one of the reasons why the PC penetration per 100 inhabitants is 7.67% which is quite low compare to that of Singapore at 65% and Malaysia at 17%.

There is also a need to be a balance between affordability and Quality of Service (QoS). Affordability is relative – what are we comparing with and in what terms. Currently, the copper cables carrying telephone services are also used to carry internet traffic, thus the quality of services may not be up to expectations. An alternative is to replace copper with fibre which is costly. At what point will we decide the trade off with the quality of services and affordability.

3. What is internet infrastructure

To build an affordable internet infrastructure, we will have to consider various factors. Convergence of wired and wireless telecommunications, broadcasting and information technology, access to internet is not limited to PC's.

ISPs such as Brunet and Simpurnet are merely local gateways to connect to the Internet and access speeds depend on international bandwidth.

Investment in internet infrastructure is expensive.

4. How to move forward

- Service providers and operators must work closely with all stakeholders.
- Explore new and cheaper technologies.
- Negotiate better prices for international bandwidth and equipment.
- Improve productivity and efficiency of the service providers and operators.
- Introduction of new packages such as time based or volume based services.
- Introduction of contents and applications on-line to increase use and reduce prices.

2.6 Pg Dr Hj Rahmah Pg Jadid, Consultant & Lecturer, Sultan Hassanal Bolkiah Institute of Education at the Universiti of Brunei Darussalam spoke on "*Creating an Information Society – Is it a must? Is it achievable?*"

An inclusive Information Society is necessary to create a Knowledge Economy (K economy). The global market is competitive and requires nations to adapt and continually improve themselves to compete effectively. Knowledge and information is being generated at an unprecedented pace, access and application of such knowledge, knowledge transfer and generating new information and knowledge enhances competitiveness.

The Digital Divide must be bridged to create an inclusive Information Society. Computer literate and internet savvy users and ICT knowledgeable individuals who can manage information to achieve their goals and develop their own skills must be developed.

Strong political and individual will and support is needed to create an inclusive Information Society. Necessary resources must be available in an environment conducive to the creation of an inclusive Information Society. Strategies must be clear, concise and coordinated. This must include capacity building at all levels of society. Further, cultural diversity and identity, linguistic diversity and local content must be recognized.

A clear vision of the K economy and Information Society must be translated into easy implemented targets and objectives. The availability of financial and human resources must be ensured.

The mindset must be shifted to equip individuals with the ability to seize learning opportunities throughout life, become an independent learner, assessment and accreditation. Capacity building is also an issue to be considered.

III. Question and Answer session

3.1 The chairman opened the floor for questions.

3.2 No questions were raised.

IV. End of session

4.1 The chairman ended the session by thanking the panelists for their presentation.

4.2 Hajah Norliha Haji Abu Bakar, the Acting Director of Brunei Telecom Department presented the memento for the chairman, keynote speaker and the panelists.