Leading Asia into the information superhighway

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Leading Asia into the Information Superhighway

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1. Introduction

This presentation reviews the information and communication revolution from the development planning and implementation perspective, especially its potential to transform the economic, social and political landscape of the high-growth countries in the Asian region. It is based on some basic notions concerning the knowledge society: that the new paradigm must be people-centred, that it caters to the needs of governance based on influence and network models and that development be addressed in a more comprehensive and integrated manner.

Leadership is discussed in the context of the emerging information superhighway, whose major features are described. Malaysia's response in addressing its own needs as well as that of the region is then presented. Finally nine key challenges are highlighted as the critical issues facing Asia as it grapples with the new development imperatives.

2. The Urgent Need for Leadership

Information and communication technologies (ICT) are imposing a major qualitative transformation of societies. Traditional systems of governance have become practically irrelevant as a result of the free flow of information. More liberalised and flexible regimes of management will arise. The old relationships based on power and hierarchy will give way to new organic systems characterised by two key features: first, interaction and influence based on information and knowledge sharing and second, networks of people and machines creating increased levels of social learning and intelligence.

Some key features of this new governance framework as are follows. Power is distributed and shared between a wider range of players: stakeholders as well as those functionally responsible and accountable. Management processes are more transparent. Decision-making is more democratic, tapping all available expertise without regard to position or seniority. Networked intelligence is leveraged to manage complex issues efficiently. Communication between human participants and machines is enhanced through globally interconnected information networks, facilitating rapid knowledge sharing and learning. Finally continual learning is the strategic factor of this change, whereby feedback between rapid acquisition of knowledge and its application leads to social, cultural and economic advancement.

Many developing countries, especially in Asia, are attempting to leap-frog into the information age as a result. Leadership is crucial if they are to succeed in nurturing a major structural transformation of their respective societies. Poor leadership or weak planning is likely to be more detrimental than developmental.

But why should Asia especially need such leadership? It is the fastest growing region of the world. The momentum generated is bound to propel Asia into the information era of one kind or another. Everyone is now interested in Asia. To some Asia will offer solutions to the problems that they themselves are facing. To others Asia offers opportunities they can take advantage of as part of their own development strategy. Asia is also undergoing a Renaissance which may culminate in a "Golden Age" of cultural renewal, based on its traditional beliefs and values, yet modern in outlook. By some measures these developments are taking place faster than at any time in man's history. And even though Asia is nonhomogeneous, comprising of a diverse collection of social, cultural, political, ethnic and religious models, there is such a thing as the Asian spirit. This is community-based living where the common good of the group transcends the desires of the individual.

Such high expectations from Asians themselves coupled with those from the rest of the world makes it imperative that strong leadership exists. This will help Asia as much as it will help others. To do this properly, leadership must come from Asians themselves. There are no clear-cut solutions for the many challenges arising from the information revolution, neither from the East nor the West. Asian solutions should be applicable throughout Asia and may even become our contribution to the world community.

3. The Emerging Information Superhighway (ISH)

There is no widely accepted definition of the ISH even though the notion of a globally interconnected medium of communication possessing advanced features has been gaining wide currency since the advent of the Internet. The tendency is to limit the definition to a purely technical level. We should expand the scope of the ISH by considering other "super" qualities that would promote comprehensive human development.

Thus, the ISH should be super in the following ways. It is certainly going to be superspeed in the multigigabits per second range. The ISH will have super connectivity and reach, domestically and globally. Super open standards will ensure seamless interconnection and integration across all hardware, software and application platforms. Super technology will ensure super convergence so that multimedia content can be easily developed and disseminated, allowing applications to be super interactive. Extra user-friendliness and intelligence will make ICT easy to use. Super cost will be affordable cost without sacrificing quality, for example, by

making the cost of telecommunication transmission and software to go through the same cost reduction curve as hardware at present. Content will become super when they are fully culture compatible, fulfilling the particular community's cultural and language needs. Super governance will practise shared and distributed power and decision-making, providing even the least capable communities an active participating role. Finally, the ISH will be super developmental by-encouraging learning and by making knowledge and skills become key drivers of the community's development programmes.

If the ISH is to have these qualities, we immediately have a paradox. Human societies have yet to formulate a framework for self-governance in a globally interconnected network of people, information resources and intelligent machines. This is a communally-owned infostructure which is self-regulating yet meeting all the diverse needs of its users. Who will own it? What rules prevail? How to moderate good ethical and moral practices without the heavy hand of legislation? Such questions can only be raised at this time. Acceptable answers are not yet forthcoming.

4. Malaysia's Response

Malaysia recognised early the strategic importance of ICT, starting from the 70s and 80s. However the social, cultural and economic conditions did not prevail until the 90s for a serious national effort to be mounted. Vision 2020, revealed in 1991, for the first time articulated a shared vision of the developed society for the entire nation. Leadership at the very top was provided to manage a smooth transition.

Strategic planning for ICT development and application began in 1994 with the formation of the National Information Technology Council (NITC), chaired by the Prime Minister. Almost the first order of business was to establish a well-defined and self-contained programme on which to understand and learn about the impact of ICT.

The Multimedia Super Corridor (MSC) was born out of the realisation that we need to take leadership rather than to wait for leadership from others. The turbulent changes taking place ensured that no single country or even a political grouping is likely to discover all the answers we need in ICT. By taking leadership, we are aiming to forge "smart partnerships" by following a path of mutual enrichment through a "prosper thy neighbour" programme, bearing in mind that in the borderless information age these neighbours may well be on the other side of the world.

The MSC is meant to be a catalyst for the country to begin with. It is a "multimedia utopia" that Malaysia is keen to share with the world community. By creating a special zone with all the necessary human, information, technical, legal and physical

infrastructure, we intend to become a world centre of excellence in multimedia content development and production. Because of Malaysia's multicultural society, we can address some of the biggest markets of the region. The MSC is a regional and global experiment by being a giant test-bed for new cyber products and services. We have positioned ourselves to be in the learning mode and to learn from making our own mistakes. By sharing openly the results of our experiments, Malaysia claims it is providing a gift to the world.

The MSC is for Malaysia a strategic programme on which to leverage other initiatives. The National Information Technology Agenda (NITA) announced recently is the first iteration of the long-term comprehensive programme for the entire country. Its objective is to "turn ripples into tidal waves": by initiating ripples of ICT development which are driven in bottom-up fashion by local players and addressing local issues, tidal waves are generated that will reverberate throughout the country. The concept of leap-frogging is also articulated. From its current position which is largely a combination of a developing as well as an industrial country, it intends to leap-frog the developed country stage directly into the post-industrial status. An advantage to be gained is the investment shift to information-based industries and infrastructure, before the industrial infrastructure has time to take root and solidify.

The NITA has three strategic developmental components: people, infostructure and applications. Three strategic objectives link these components. Between people and infostructure, the objective is to achieve access and equity. Between people and applications, it is qualitative transformation. Between infostructure and applications, it is value adding. The strategic mission is to establish a Civil Society according to Vision 2020.

5. Leadership Challenges for Asia

The first challenge is learning. It is necessary to create a learning environment and one of the best ways is to learn by doing. In the process it is expected that mistakes will be made, thus providing a means of improving ourselves. Ultimately this demands a will to manage our own destiny through self-reliance and independent thinking.

The second challenge is in infostructure development: how to provide access and equity to all citizens, such that each person is empowered and enabled to apply ICT for personal or community growth and development. The high cost practically eliminates the government as the main player. On the other hand, the private sector may be reluctant to invest due to uncertainty in the long-term return.

The third is content and applications, where social and cultural relevance and compatibility become key factors, especially for multimedia. This content should also be developmental and not be focused simply on entertainment. The diverse culture of Asia, and indeed of the entire world, begs for multicultural content. A monolithic industry churning out identical material for all markets is not likely to succeed in the future.

The fourth is technology. As a poor cousin of the developed countries in technology, Asia is at a grave disadvantage especially taking into consideration the international intellectual property regime which favours the currently strong. Technology transfer from the developed world has been a dream that has not been translated into reality. Sharing of R&D results has also been minimal. The challenge is for the developing world to realise that its core strength is people, and people as a market as well as a source of innovation and creativity is something the developed world needs.

The structural transformation of the economy constitutes the fifth challenge. The digital economy brings new freedom and opportunities but with it also the risk of greater hegemony. The creation of value in a shared global economy is fraught with difficulties as competition heats up and whole economies get hollowed out by transactions occurring in cyberspace.

The sixth is that of human development: how to promote acculturation on a mass scale, how to rapidly acquire knowledge and skills for specialised work and how to establish a knowledge society in an environment short of almost all the critical factors of change.

The seventh challenge is in governance. In the borderless world the concept of national sovereignty has become an anachronism. Domestic, regional and global governance will evolve into new forms of democratic institutions based on communities built around content using electronic networks, supplementing the traditional geography-based communities of the present. Commerce will also tend to move into cyberspace with its own governance issues. Cyberlaws need to be enacted to nurture the growth of such communities.

The eighth challenge is epistemology. The industrial age is characterised by a materialistic conception of man and nature which will remain as vestiges retarding growth of the knowledge society. The moral and ethical basis in the development and use of knowledge by society will need to be reexamined.

The ninth and final challenge is the establishment of the civil society, one that is self-regulating and empowered through the force of knowledge, skills and values inculcated within the people. Electronic communities crossing all borders introduce new forms of social contracts that somehow will have to be integrated within the

value systems that have been proven over millenia of human interaction. The potential is to launch an Asian Renaissance that is at once modern in having the capacity to employ the latest ICT and traditional in maintaining our traditional values.

6. Conclusions

Asians need to lead Asia. More than this it is also expected by others to lead them as well. Leadership should be Asian in the sense that it must renew and strengthen Asian cultures, especially the values relating to knowledge, learning and community-oriented living. In performing this function it is important that leaders have the right vision and mission and have the will to formulate and implement strategic programmes.

The influence and network models of governance will gain ground to supplant more hierarchical systems. Leadership has to recognise this change and take proactive steps to transform from within.

Development of Asian versions of the civil society has merit and would be a positive factor in the rise of the Asian Renaissance. Asian success in this venture would enrich world civilisation.

Malaysia has taken the first step by assuming leadership for the sake of its own transformation. Its initiative will also help regional growth and for this purpose it is ready to share its experience as a gift to the world community.

LEADING ASIA INTO THE INFORMATION SUPERHIGHWAY

Asia's Communication Challenges: Skyways, Highways & Corridors

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Outline of Presentation

- 1. Introduction**
- 2. The Urgent Need for Leadership**
- 3. The Emerging Information Superhighway**
- 4. Malaysia's Response**
- 5. Leadership Challenges for Asia**
- 6. Conclusions**

Why Asia needs leadership

- fastest growing region in the World
- everyone is interested in Asia now
- Asia is undergoing a Renaissance
- diverse range of economic, social, cultural and political models
- high expectations from Asia
- Asia needs leadership... and Asia needs to lead
- ...Asians should lead Asia

The Urgent Need for Leadership

- radical qualitative transformation of societies and governance driven by the information paradigm
- the need to move away from power and control models towards influence and network models
 - distributed and shared power
 - transparency and openness
 - democratic processes
 - empowerment

The Urgent Need for Leadership (cont.)

- networked intelligence: human and machine
 - continual learning
- many countries attempting to leap-frog into information era

The Emerging Information Superhighway

- **What is so super about the ISH?
it is super...**
 - **speed: multigigabit per second**
 - **connectivity and reach: domestic, global**
 - **standards: open**
 - **technology: advanced**

The Emerging Information Superhighway (cont.)

- convergent: multimedia content
- cost: affordable
- governance: shared and distributed
- content: culture compatible
- friendly and intelligent: easy to use
- developmental: capable of advancing society's goals

Information Superhighway Challenges

- **Who owns it?**
- **What rules prevail?**
- **How to moderate good ethics and morality without power of legislation?**

Malaysia's response

- recognising need for leadership: domestic, regional and global
- mutual enrichment and smart partnership

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Malaysia's response (cont.)

- the Multimedia Super Corridor (MSC):
the catalyst
 - "multimedia utopia"
 - leverage for national development
 - learning from making mistakes
 - Malaysia's gift to the world

Malaysia's response (cont.)

- the National Information Technology Agenda (NITA): the strategic national programme
 - turning ripples into tidal waves
 - the concept of leapfrogging
 - the national IT framework: people, infostructure and application development
 - the Civil Society for Malaysia's Vision 2020

NATIONAL IT AGENDA :

High Tide / Low Tide in Malaysia : *Current Notion of Societal Evolution*

Multimedia Super Corridor - Not just another technology park

‘Multimedia Utopia’

- 15x50 km garden corridor south of downtown Kuala Lumpur
- Special cyberlaws, policies and practices tailored to enable residents to achieve the full promise of multimedia
- World-class physical infrastructure and next-generation 2.5 - 10 Gb multimedia network
- A one-stop shop to facilitate investment

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NATIONAL IT AGENDA :

Turning Ripples into Tidal Waves:
National IT Framework

People

access and
equity

qualitative
transformation

Masyarakat
Madani -
Civil Society

Infostructure

Applications

adding value

National Information
Technology Council

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Leadership Challenges for Asia

- learning
 - by doing
 - by making our own mistakes
 - by managing our own destiny

Leadership Challenges for Asia (cont.)

- **infostructure**
 - **the access and equity issue**
 - **bearing the high cost of infrastructure development**

Leadership Challenges for Asia (cont.)

- **the civil society**
 - **empowerment through information and knowledge**
 - **electronic communities**
 - **Asian Renaissance**

Leadership Challenges for Asia (cont.)

- **content and applications**
 - **social and cultural relevance/compatibility**
 - **developmental content, not simply entertainment**
 - **multiculturalism**

Leadership Challenges for Asia (cont.)

- **human development**
 - **acculturation on a mass scale**
 - **knowledge and skills for specialised work**
 - **the knowledge society**

Leadership Challenges for Asia (cont.)

- **technology**
 - **the international intellectual property regime**
 - **promoting technology transfer**
 - **sharing R&D results**

Leadership Challenges for Asia (cont.)

- **structural transformation of the economy**
 - **the digital economy: freedom or hegemony**
 - **creating value in a shared global economy**

Leadership Challenges for Asia (cont.)

- **epistemology**
 - **confronting vestiges of materialistic conception of man and nature**
 - **moral and ethical basis in use of information and knowledge**

Leadership Challenges for Asia (cont.)

- **governance**
 - redefinition of national sovereignty
 - domestic, regional and global governance:
networks, communities, content and commerce
- **cyberlaws**

Conclusions

- Asia should be led by Asians
- importance of vision, mission and strategic programmes
- influence and network model of governance
- Asian version of Civil Society has merit and would enrich world civilisation
- Malaysia has assumed leadership in areas it feels competent in, and ready to share