ELECTRONIC GOVERNANCE and ELECTRONIC DEMOCRACY:

Living and Working in the Wired World

PROFESSOR THOMAS B RILEY

edited by
ROGERS W'O OKOT-UMA

ELECTRONIC GOVERNANCE

AND

ELECTRONIC DEMOCRACY:

LIVING AND WORKING IN THE WIRED WORLD

PROFESSOR THOMAS B RILEY

Edited by
ROGERS W'O OKOT-UMA

The Commonwealth Secretariat, London, UK
December, 2000

The Commonwealth Centre for Electronic Governance (CCfEG) is a non-profit making organisation established to assist the development and promotion of electronic government (eGovernment) and electronic democracy (eDemocracy) in, amongst and between various human and institutional communities of interest, expertise and practice primarily, but not exclusively, in relation to the Countries of the Commonwealth.

The Commonwealth Secretariat is an autonomous inter-governmental organisation dedicated to work as a trusted partner for all Commonwealth people (i) as a force for democracy and good governance; (ii) as a platform for global consensus building; and (iii) as a source of practical help for sustainable development. Under the auspices of its Management and Training Services Division, the Commonwealth Secretariat supports short- and long- term training programmes, institution building, advisory services and publications relating to good practice guides in various areas of development, including public informatics. Funding support for all development-oriented activities is provided by the Commonwealth Fund for Technical Co-operation (CFTC).

SFI Publishing is a *not-for-profit* publishing service-provider organisation committed to making publishing more accessible to individuals and groups by facilitating the publication of works by individuals and groups, the neophyte and the professional alike, who too often fail to envision the potential of their intellectual creativity and/or research or, more often than not, are discouraged by the complexity and exclusivity of the dictum of the old traditional world order of the conventional publishing process and mode of practice. With its network of specialist editorial support encompassing various areas of human concern, SFI Publishing is able, among others, to forge partnership with organisations with similar objectives and to provide independent professional and specialist advice, reviews and critiques on manuscripts and published works

Published by: Commonwealth Secretariat and SFI Publishing on behalf of the Commonwealth Centre for Electronic Governance (CCfEG).

Citation: Commonwealth Secretariat, 2000. Thomas B Riley; Rogers W'O Okot-Uma (Editor). ***Electronic Governance and Electronic Democracy: Living and Working in the Wired World*** xvi + 130pp

ISBN: 0-85092-659-9 (Commonwealth Secretariat)
1-901127-15-X (SFI Publishing)

TYPESETTING, COVER DESIGN & PRINTING
by
ABSOLUT
www.absolutpro.com

DISCLAIMER

The views expressed in this publication are those of the author(s) and do not in any way reflect the opinion of the publisher or that of its agents or collaborators or partners. No responsibility is assumed by the publisher or its agents for any injury and/or damage to persons or groups of persons or property resulting from any inaccuracy or inadvertent omission in the book, or as a matter of products liability, negligence or otherwise or operation and/or application of any methods, products, instructions or ideas contained in the material herein.

TABLE OF CONTENTS

ACKNOWLEDGMENTS

This publication was prepared under the auspices of the Commonwealth Secretariat, London, United Kingdom. Research and writing of the publication was also made possible with funding from the following organisations and institutions:

The Library and Information Commission, United Kingdom;
Canada Institute for Scientific and Technical Information, National Research Council Canada;
Human Resources and Development Canada, Office of Learning Technologies;
Canada Customs and Revenue Agency, Human Resources Agency; and
The Federal Privacy Commissioner of Canada.

Thanks are also extended to those who assisted in the research, writing and preparation of the publication. These include Murray Long, Murray Long and Associates, Ottawa, Canada, for his work on the Canada and United States chapters; Dieter Ziennbauer, PhD candidate, London School of Economics, United Kingdom, for his research assistance; and Rogers W'O Okot-Uma of the Commonwealth Secretariat, London, United Kingdom, for providing funding under the auspices of his Commonwealth Public Sector Informatics Programme. Special thanks are also due to Steven Clift, Democracy On-line, USA, for his chapter on Electronic Democracy On-line.

Acknowledgement is also due to the many people in Canada, the United States, the United Kingdom and Hong Kong who gave of their time through interviews and providing research sources. Those interviewed are listed in the footnotes of this paper and are thanked for the time and assistance they gave to the author.

PREFACE

This is perhaps one of the most interesting times in history to be alive. We are witnessing a phenomenal abundance of change in societies around the world in a very short period. The source of most of this change is new technologies and the Internet. In the past decade we have seen every aspect of the lives of individuals and organisations go through many evolutions and uncertainties. Large, medium and small corporations alike have discovered the need to adapt to the new technologies, or sink in the emerging global knowledge economy. There is no facet of life in the industrialised world that has not undergone some form of shift. The resultant new information economy has brought with it different approaches to work. There has been a surge in tele-workers, entrepreneurs and home run business. Corporations have downsized and knowledge workers migrate from company to company, open to the highest bidder and the organisation with the best deal. The highly proficient, intelligent and innovative knowledge worker is in demand. Knowledge itself seems to have become a commodity in the marketplace of ideas. The pace of change has been so dizzying to some they have difficulty in meeting the challenges these shifts have brought.

Nowhere has this been more evident than with government, who constantly are having to cope with the persistently emerging new technologies and demands from citizens. In today's wired world the interactive citizen is one of the fundamental cornerstones of change. As will be seen in the following chapters, the Internet has put new power into the hands of the citizen. Governments can no longer simply be dispensers of information, even in sophisticated forms being developed by many governments. But governments have not been passive observers and are rising to many of the challenges. New technologies are being used not only to deliver services to the public but to enhance government administration and facilitate businesses.

This publication looks at the means by which some governments are moving to electronic governance. In this context *governance can be seen as both a means of using new technologies to deliver services to the citizen, and ways in which to change and improve the efficient methods of administration within governments themselves.* The focus of the publication is in the electronic delivery of services. Another element discussed in the publication is *how governments will increasingly be able to involve citizens in the democratic process of government.*

At this stage of development few governments have effectively been able to involve their citizenry electronically in the democratic process. Many governments have been effective dispensers of information, which often passes as a means of enhancing the democratic process. There are many government initiatives seeking to help citizens to get on-line, seek feedback on government reports on-line, and develop listservs and discussion groups to elicit the views of the citizens. There are also many groups actively participating in on-line activities in the hope of influencing government policies. But for the most part, governments are far behind the activities of citizens on-line around the world. Those actively engaged in on-line activities involving social or political changes see the Internet as a medium to foster, enhance and change the way people have traditionally engaged in the democratic process.

The story of the Internet and electronic democracy is a cautionary tale. Much of the enthusiasm and hope for new forms of democracy and citizen input into public issues, sound very much like the gushing optimism expressed about the potential of television in its nascent years. It is not yet known if the potentials offered by the Internet will be met. Will the Internet become like television, an arid desert with only a small oasis of excellence? This is an important question because the potential is there for the Internet to become dominated by a few large, corporate interests, or subsumed by government regulation that could inhibit the freedoms offered by this new technology. There is also the danger in a recent trend indicating that people are increasingly spending more time in isolation sitting in front of their computer terminals.

A recent survey of 4,113 adults conducted by Stanford University's Institute for the Quantitative Study of Social Sciences found that "55 percent of Americans have access to the Internet at work or at home, and approximately 20 percent of regular Internet users spend more than 5 hours a week on-line. Of those 20 percent, 13 percent spend less time with family and friends, 8 percent attend fewer social events, and 25 percent spend more time working at home in addition to spending a full day at the office. The findings of the study also support the assertion that Americans are abandoning traditional forms of mass media, such as newspapers and television, in favour of the Internet."[1] There is wide potential of change here for the way people will interact as a society as the Internet continues to grow.

Suffice to say, at the moment the Internet is creating major change both positive and negative. One of these changes is in the ways citizens are

engaging in the democratic process and beginning to slowly alter the face of democracy. This publication looks at some of the initiatives and the reshaping of the face of democracy which on-line citizen participation is bringing.

The first part of this book deals with mechanisms that different governments are using to develop electronic governance initiatives. Countries looked at here are the United Kingdom, Canada, the United States, Malaysia and Hong Kong.

There is also a section on privacy, which shows that the massive amount of data collection, sharing, amassing and usage by the private sector represents a fundamental threat to the personal information of individuals who go on-line. The conclusion is that there is a need for an International Privacy as a Human Right Convention to protect citizens in the wired world.

The final section of the book analyses the state of electronic democracy on-line, the directions electronic of democracy is taking, where government stands in these developments, and how on-line activism is changing the shape of democracy as we have known it.

CHAPTER ONE

GREAT BRITAIN: A STRATEGY FOR THE WIRED WORLD

"From the beginning this Government has set out its commitment to serve the best interests of the British people. As I see it, ensuring that the information revolution benefits the many, not the few, is central to fulfilling this contract....We must look at reforming government from the point of view of the ordinary person. Technology is there to make peoples lives easier and governments more accessible and less intimidating."

Hon. David Clark, Minister for Public Service, November, 1996

Introduction

The United Kingdom has become as high tech as North America. This impression comes when it is analysed from the perspective of the numbers of people on-line (nearly 50% of the population as of February, 2000). But the United Kingdom initiatives and movement towards an information technology infrastructure are different from Canada and the United States, as this chapter will show. One of the differences is that the British Government has developed an overall strategy on the delivery of services. As will be seen below in the Chapters on Canada and the United States, these countries have taken more of a piecemeal approach to IT implementation. What the British government is doing in the way of using technology for the delivery of all manner of services and programs is striking. It is useful to study as a comparison to what is occurring in Canada.

There are many similarities in the problems the British Government has in delivering services to its citizens, which are very familiar to Canadians. While the United Kingdom is often seen as a small Island (and in comparison to Canada's massive land mass there is justification in this) in fact, like Canada, they have many remote areas that need to be served. There is also a language question as parts of the UK, Wales and parts of the Highlands in Scotland, speak Gaelic and services have to be offered in this

language. One distinct difference between Canada and the UK is that there is a higher profile political leadership in the United Kingdom, in that the Prime Minister, the Right Hon. Tony Blair, is consistently promoting new information technologies and the values of government being on the Internet. As will be shown below, he has his own interactive web site as Prime Minister. It encourages citizen participation in the site and feedback on ongoing policy debates.

Following is an overview of the steps being taken to move the UK government towards electronic government. The focus here is on the approaches taken for the delivery of electronic services to the public.

The Minister responsible for the Public Service has responsibility for all manner of IT initiatives. There is a division in the Cabinet Office, the Central Information Technology Unit (CITU), which has responsibility for the development and implementation of policy initiatives, such as the 1996 Green Paper GOVERNMENT DIRECT and 1999's MODERNISING GOVERNMENT initiative. CITU is also responsible for assisting departments in their implementation of the various IT innovations and initiatives.

The 1996 Green paper was called "Government.Direct: a prospectus for the Electronic Delivery of Government Services" and called for responses from the public and interested groups. The analysis of "government direct" is followed by a look at the Modernising Government initiative and a recent consultation paper entitled E-Citizen E-Government and E-Business. The final section looks at how the Department of Trade and Industry (DTI) is using knowledge management to forward some of the goals laid out in Modernising Government.

Government Direct: The 1996 Government Green Paper

When this Green Paper was released in November 1996, there were already a multitude of computer and IT applications in government, as was to be expected in an increasingly high tech world of the '90s. Implementations ranged from CD-ROMs, usage of computers to enhance efficiency, saving millions of pounds in the process, bar coding systems for benefit order books (which alone saved over £50 million in its first year of operations), computerisation of the land registry, web sites, elec-

tronic bracelet for parolees and many other individual applications. The UK Green Paper represented a move towards broad implementation of IT across government and delivery of services to the public, in an attempt to harmonise their own services as well as assist people in making access to government information and government services easier. The proposals planned to take advantage of the world class telecommunications infrastructure which has been built in the UK.

The government has also sought, through a number of different projects, to increase the public's awareness of the importance of IT. Under their Information Society banner (also an European Union initiative) they initiated a program for SMEs (small and medium sized enterprises). These present a range of programs for the business community and were designed to raise awareness, to demonstrate the practical benefits of adopting new technologies, and to spread best practice.

The government had three main purposes to better harness the delivery of government services:

- Provide better and more efficient services to businesses and citizens;
- Improve the efficiency and openness of government administration; and
- Secure substantial cost savings for the taxpayer.

The original Green Paper reinforced the government's intention to ensure that these services that are delivered electronically are of world standard in efficiency and quality. But, at the same time, there would be a pressing need to continue to deliver services in the old formats to those who either do not have access to the technology or do not want to use electronic services that will be on offer. There is also a necessity to continue to deliver programs in the standard formats, while using IT internally to execute the functions more efficiently, as there would continue to be situations where technological applications would not be feasible. While in time the information technology infrastructure will take hold the Government Direct initiative recognised there would continue to be limitations. These limitations continue to this day.

The Green Paper was introduced while the Conservative Party was still in power. At the time they created a Ministerial Group, chaired by the Lord Privy Seal, to ensure a strategic vision was achieved by taking into

account all of the activities across the whole of government. This group was charged with identifying and taking forward significant cross-departmental initiatives in information technology to ensure that developments in the field were exploited to the full in the national interest. While this was a worthy and idealistic statement the question still remains to this day as to whether this would be at all feasible. While many governments have tried to achieve this laudable aim, of developing a strategic view that takes into account a broad range of applications and interest of all of government, few have achieved it. In the area of interactivity with the public, to broaden the democratic parameters of electronic government, most governments continue to wrestle with how precisely they can be interactive with the citizen in a manner satisfactory to both the public and government agencies. This is a phenomenon that is apparent in all the countries studied here.

The New Labour government's Minister for the Public Service, David Clark, in 1997 indicated they would carry on with the initiatives articulated in the Green Paper. On 18 June 1997, David Clark announced that the government would bring forward a White Paper to set out a coherent program for the reform of government. That paper, he said, *"will underscore our new government program, informing all that we do. I want to bring government services closer to the people and ensure the needs of the customer are met. It presents an amazing opportunity to restructure government's dealings with citizens and small businesses around their needs."*

Expanding on this theme of meeting the needs of the many and the interests of society as a whole, he went on to say, *"...(Using new technology, government will be accessible through electronic `post offices', where people will be able to claim benefits, get tax information or renew driving licenses at the touch of a button. This will be possible from our homes using interactive Internet links, down a telephone line or from multimedia kiosks in supermarkets and shopping centres. Services will be available electronically 24 hours a day with an instant response."*

He also said his government was trying to move towards the *"one stop shop"* concept of services, in attempts to reduce the number of departments people have to contact for different or similar services. *"Clever use of information technology,"* said Mr. Clark, *" will reduce the traditional boundaries between Government departments. People will no longer have to work out which Government department to contact. Technology will provide a simple and efficient link to any Government Agency or function. In the longer term this will mean a radical restructuring of the government machine around the needs of the customers. This is central to our*

program for delivering open, responsive and simpler government."

He stressed the importance of IT not only to make government more efficient and for easing the delivery of services , to make it easier for people to deal with government, but to stimulate the economy. He observed that *"the current value of the combined information technology, electronics and communications industries in the UK is estimated to exceed £30 billion a year and is growing fast. Britain's success in the information revolution is vital to our future prosperity and we must plan ahead to get the best for everyone".*

Beyond stimulating the economy, the Minister also sees IT as a means of economising on government spending in the operations of government itself, saying that "*Our ambitious plans for improving Government through Information Technology will play a leading role in the Comprehensive Spending Review which is currently taking place across Government. IT can save resources, freeing up time and money which can be redeployed.*" In speaking of future plans for IT initiatives he reiterated his view of reaching all the citizenry and not making electronic applications selective or simply for the few. "*Although,*" he concluded in his 18 June 1997 remarks to a conference hosted by the UK Government Computing magazine, "*electronic services will obviously be optional rather than compulsory, I want to ensure that new technology benefits the many and not the few. The Information Society offers unparalleled opportunities for this country and this government. We can make a great difference to our society and its members.*"

Government Direct: Issues and Applications

As this document was a discussion paper on its proposed strategy for electronic services, it presented both a variety of technological applications, some of the kinds of services to be delivered, and, most importantly, it laid out the issues that need to be addressed. As this was a consultation paper, and the government was seeking input from many groups, it laid out the basic principles that the strategy might encompass and poses questions as to whether this is the right approach.

The basic principles articulated here are:

Choice: While it is preferred citizens choose electronic application there should remain the right to opt out of this and continue with paper based

services or traditional face-to-face or telephone queries.

Accessibility: Easy access is the key and working out how, where and when the citizen will have access to the services. This could include "one-stop shopping"

Options: Taking into account people in remote areas is a vital issue.

Efficiency: This provides for streamlining operations across government to ensure efficiency and the simplification and automation of routine information.

Rationalisation: This calls for the sharing of resources for functions and processes which are common to more than one department in an effort to reduce costs and simplify systems. It would also mean an effort to cut down on not only duplicative services but the collecting of the same information from the individual by different departments.

Open Information: This would be an attempt to make all types of information available electronically. This would cover a wide range of information but takes into account the protection of personal information as required under the UK.

Data Protection Act: (Note: The Green Paper was released in November, 1996, prior to the election of the Labour Government of Prime Minister Tony Blair in May, 1997. Since coming into office the government produced a White Paper on **Freedom of Information**, sought wide consultation and input and has since introduced a freedom of information bill, which is currently before Parliament. Passage of this Bill should have a substantial impact on the government's overall Information Policy).

Fraud Prevention: This will mean the implementation of systems to ensure persons making enquiries or paying for services are who they say they are and all transactions are secure.

The questions posed here by the paper were:

- ❑ Are these the right principles on which to found the strategy?
- ❑ What are the implications of delivering government services electronically, direct to the public?
- ❑ Where might public access terminals be most conveniently located?

- ❑ How important are twenty four hour access and near instantaneous response?
- ❑ What are the implications of service rationalisation?
- ❑ What kinds of information would it be convenient to be able to tell the government only once?
- ❑ What are the implications of sharing data between government departments?
- ❑ What benefits would follow from the wider use of e-mail for communication between government and the public?
- ❑ Are any difficulties caused by the present Crown Copyright arrangements and if so how might they be reduced or removed?

(Note: Many in the Information Industry have given a resounding "Yes" to the above question and see the copyright question as a major bar to accessing the vast wealth of government data for commercial and other purposes. This question was raised in a 1997 Report from the House of Lords.) The responses to the Green Paper expressed a strong need for reform of Crown Copyright and the government said it agreed extensive review and reform was needed.

The Green Paper recognised that there are many hurdles to overcome in implementing such a strategy and suggested the best approach would be to do this on a pilot basis. The paper also recognised the important question of who is going to pay for these pilots and the eventual delivery of the services, mainly the building of the infrastructure and the administration of the services.

"*Implementing the strategy will involve a very large capital investment, and is likely to take five to ten years. Large information technology projects, both in the UK and abroad, have met with mixed results, for example cost and time-scale overruns, and failure to deliver all the planned benefits. The best value for money will be achieved by balancing the risks involved between public and private sector.*"

The Green Paper goes on to say that the government "*is determined to protect the taxpayer from technical and program risks, by placing responsibility for them where they are best able to be managed and controlled, which is in the private sector.*" [2] However, as a comment, with the new government this attitude might change or we will see the original plan of the Conservative Government to have the private sector raise the necessary capital investment to deliver the services, proving the government is satisfied with the standards set by a private sector company. The Paper also stated that full electronic services would have to be done on a stage

by stage process, beginning with simple information functions and gradually moving into secure transactions. Security will play a major role in any proposed development in the years to come. The theme often arises throughout the text of Green Paper.

Tools of Delivery and Sampling of Potential Services

The Green Paper recognises that there are a multitude of technologies that can be utilised to deliver services, including Smart Cards. Some of the options discussed are as outlined below:

More Familiar Technologies

Domestic Television: Set top boxes already exist to allow Internet access through television over a telephone line. Such services could be enhanced with the continuing laying of cable in the UK. Televisions, which are increasingly being digitized, could be used to deliver and access a variety of on-line services. The British are used to information services through the Television having had Teletext, a vast information resource, since the 1970's.

The Personal Computer: This, with a modem and a telephone line, could be used to access any of number of services. Citizens, notes the Green Paper, could access all manner of government services from both the home and the office.

Link to Computer Systems: This essentially would be links from business to government departments and, conversely, the ability to be able to pull down information and services through the linking of computers.

Banks and Building Societies: As these institutions already have public access terminals in their front offices then the government could utilise these for the delivery of services.

Public Access Terminals: Also generically known as kiosk, this technology is already in use in many countries, including the UK, in both the public and private sector. One of the main values of this form of technology is the ability to use a touch screen. A small camera could also be installed and the individual could then access a government person on-line or a screen for services. Privacy of conversations and transactions could be secured through the use of a phone handset at each public access

terminal.[3]

Smart Card Technology

As to smart card technology there is the recognition that appropriate security measures are needed. Thus, options like fingerprint scanning, eye retina scanning, a palm print or electronic signatures were considered. The latter is a combination of the person's signature scanned into the card itself, a Personal Identification Number (PIN) and some personal, identifying information. This is an option that might well catch on as most British people (90%) use some form of a smart card in their daily activities. There is also an electronic signature program now in place through the government.

On the subject of smart cards, as a reliable option for the delivery of services, the Green Paper says:

"8.10 Smart cards in particular open up other possibilities - the cards can be used for more than one purpose. Just as credit cards are accepted today by some airlines as boarding cards for flights, making life easier for frequent travellers, so it would be possible for an 'Electronic Signature' card to be used for more than one purpose. It would be possible for the electronic signature used for a bank to be the same as the one for dealings with government. Alternatively, it would be possible for the same card to hold two or more electronic signatures: one recognised by the government, and another recognised by a bank, and so on. It would also be possible for a card to contain other kinds of data (emergency medical data such as blood groups or allergies, for example). If such data were stored, it would be done in a way that prevented it being accessible to machines reading an electronic signature and vice versa."

"8.11 What is clear, however, is that electronic signatures of some form are already part of everyday life, and can be expected to be more so in the future. They will be cheaper and more convenient for many transactions. The government intends to carry out evaluations of available systems and conduct trials to find out the type of electronic signature which works best, and which is most convenient for people to use." [4]

The questions arising from these discussions in the Green Paper are:

- What are the implications of using electronic signatures in transactions with the government?

- ❑ What are the implications of electronic signature cards having additional functions (e.g. to carry electronic signatures recognised by private sector organisations, to carry medical or other personal data)?

Government Direct: Electronic Service Delivery Benefits

The types of services the Green Paper perceives will be of benefit to the citizen need not be fully articulated here but only mentioned, as they are familiar to government seeking to bring similar services to their citizens. They see benefits for job seekers; vehicle license renewal; skills training; income tax return filling; claiming a benefit; checking personal information; accessing government information to assist both individuals and business; accessing regulatory information; health and safety information and others. All seek to make transactions by both the citizen and business easier and more efficient. While the government wants to cut costs and increase efficiency, they see it cannot be done at the expense or to the detriment of the citizens to whom the services are being delivered. This is why this is a consultation process and the questions asked for the types of benefits that could be delivered are:

- ❑ How might electronic service delivery be arranged to bring the greatest benefits to the citizen?

- ❑ How might electronic service delivery be arranged to bring the greatest benefits to business?

- ❑ How might electronic service delivery be arranged to bring the greatest benefits to the taxpayer?

- ❑ What are the implications of pricing electronic services differently from conventional services?

The Green Paper was followed by **Modernising Government** the actual implementation strategy not only *for the integration of IT in government and for the delivery of services but for the actual modernisation of government itself.* The White Paper is an overall agenda for reform of the public service in the United Kingdom. The Modernising Government White Paper reflects the next important step in the preparations for the delivery of government services and development of methods for govern-

ments to interact with the citizen and vice versa. The latter is still a goal in progress.

Modernising Government: Template for Change

"Modernising Government is an important statement for the government. It is a programme of reform for the future. And it is a series of new measures which the government will implement now. But Modernising Government is also about something else. It is a clear statement by the government of what government is for. Not government for those who work in government, but government for people √ people as consumers, people as citizens.

That doesn't mean to say that those whose job it is to deliver public services are not important. Far from it; they are central. For too long, they have been denigrated. This government values public servants, and public services √ and we will continue to do so. But in doing so, we will make sure that government services are better √ that they reflect real lives and deliver what people really want. Better provision of better services available from government at all levels is central to the approach of Modernising Government √ in schools, in hospitals, in doctors' surgeries, in police stations, in benefit offices, in job centres, in local councils. To improve the way we provide services, we need all parts of government to work together better. We need joined-up government. We need integrated government. And we need to make sure that government services are brought forward using the best and most modern techniques, to match the best of the private sector √ including one-stop shops, single contacts which link in to a range of government departments and especially electronic information-age services.

These are key new initiatives. It is important that we act upon them now and we will. But Modernising Government is a long-term programme. Modernising Government is a key step forward in that programme, and a road-map for its future. It sets out a challenge for all of us in government: a challenge to modernise government, to create better government to make life better for people." [5]

The March 1999 UK White paper, Modernising Government, lays out many of the possible initiatives that the government is planning to take to better serve the citizen. The White Paper recognises that many of the changes in society are coming about because of rapidly developing information and communication technologies. The Cabinet Office's Central Information Technology Unit (CITU), responsible for developing and

implementing the technological changes, understands that the citizen in today's environments wants interactivity. Knowledge management is seriously considered in many British government departments partly because of the modernising government initiative. One case study looked at below is the Department of Trade and Industry. But first it is important to briefly look at the thrust of the White Paper.

The HYPERLINK *"http://www.citu.gov.uk/moderngov.htm"* White Paper on Modernising Government incorporates three major areas for action:

- ❑ Citizen focus and consultation;
- ❑ New methods of working; and
- ❑ Collaborative ventures, involving the best of public and private sectors.

The Prime Minister set this challenge in 1997. At that time he said that he wanted, by the year 2002, 25% of all services to be delivered through electronic means. He then revised this in 1999 to say that he expected the government to be delivering 100% of their business services electronically by the year 2008. In March, 2000 the goal was again moved up to the year 2005. To this end, the White Paper on Modernising Government stated that the public will deal with government through home computers, call centres, public terminals and digital TV's, as well as personal contact (including one-stop shops). This is not to imply that all services will be delivered solely through information and communication technologies. Services will continue to be delivered to the non-connected citizenry in traditional formats.[6] The important thing here is that people will be able to access government services through the medium of their choice.

The Central Computer and Telecommunications Agency, CCTA, is a UK Executive Agency that advises and consults with all government agencies. To them the call from the Prime Minister means that public sector organisations will need new methods of working centred around Internet technology and telephony. The impact of this change will require extensive re-engineering of departments, and will involve frontline staff, policy makers, and business managers, and the way they deliver their services.

A large investment will be necessary, and this will demand collaborative ventures between organisations across the wider public sector, and between public and private sectors. The management of risk, audit and accountability will be key concerns. (see: HYPERLINK *http://www.ccta.gov.uk/corporate/modern.htm*

http://www.ccta.gov.uk/corporate/modern.htm)

The White Paper on Modernising Government is not solely about technology. Its main thrust is that there is a need to modernise all of government to better serve the citizen. As the Prime Minister has said: *"Modernising Government is a significant step forward in what is a long-term programme of reform. It puts in place a number of important initiatives, and sets out an agenda for the future. But in line with the Government's overall modernisation programme, in line with our policy of investment for reform, it is modernisation for a purpose: modernising government to get better government – for a better Britain."*[7]

Modernising Government: Electronic Services Delivery

The Modernising Government White Paper is changing all levels of government, starting at the top with the Prime Minister Tony Blair. The Prime Minister has been the major advocate of not just giving people access to the Internet but bringing people into the democratic process using information technologies, especially the Internet. The Prime Minister's web site is interactive and when putting up White Papers and Policy Papers for discussions allows for on-line responses. The following update was posted on the Prime Minister's web site in April, 2000.

Modernising Government: Electronic Service Delivery Briefing

The revolution in Information and Communication Technology has the potential to radically alter the delivery of government services. There is a huge opportunity for government (both central and local) to improve quality, reduce costs and dramatically change the way services are delivered.

There are many initiatives throughout central and local government to deliver electronic services.

In central government they are driven by the Modernising Government White Paper (published in March 1999), which states that the government will continue to promote initiatives to modernise services in accordance with the needs of citizens and businesses. It sets time-bound targets to make sure that departments and agencies deliver an ever increasing number of services electronically.

The White Paper proposes that by 2002, the government intends, as a min-

imum, that citizens will be able electronically to:

- ❑ Book driving and theory tests;
- ❑ Look for work and be matched to jobs;
- ❑ Submit self-assessment tax returns;
- ❑ Get information and advice about benefits;
- ❑ Get on-line health information and advice;
- ❑ Use the National Grid for learning; or
- ❑ Apply for training loans and student support.

Some of this is in the process of being realised right now. For example, the National Health Service (NHS Direct) is available on the Internet. Shortly to arrive is me.gov.uk, which will eventually be a single gateway to all public services that can be accessed electronically; initially on the Web with a personal computer, but later on interactive digital TV. It will start off with a facility allowing the citizen to inform all of central government of his or her change of address. Following that, citizens will be able to go to me.gov.uk to fill in their income tax returns to the Inland Revenue on-line. Other services will be added in time that might involve some sort of transaction between government and citizen (like benefits applications and payments).

Electronic service delivery will not just be through personal computers with Internet access. The Internet is a virtual space and personal computers are only one vehicle for navigating through it. Historically they have been the only vehicle. That is about to change. Within the next 5 years many will gain access to the Internet through interactive digital television, mobile phones and even games consoles. At the community level, some local centres already have public access interactive kiosk using Internet connections, which do or will provide some local government services electronically.

Government still has much work to do, however, to create a more coherent, co-ordinate, long term strategy that will:

- ❑ Prioritise electronic channels and services (including enhanced existing services and the creation of entirely new services)

- ❑ Indicate how government should best be organised, structurally and financially, to deliver more citizen focused services and, meet citizens preferences while still ensuring access for all.

None of this is easy to do. There are some central dilemmas that are hard to overcome. For example, those in most need of many government services that could possibly be delivered electronically in the future, including even benefits, are least likely to have the money to buy electronic channels; although mobile phones could be an exception here with a level of ownership already far higher than personal computers. They are also least likely to have joined a bank into which benefits could be electronically transferred. Indeed, they are less likely to be accessing an on-line discussion forum such as this. This could all change as interactive TV and Internet-enabled mobile phones start to enter households in great numbers but it should not be ignored.

There are also other barriers, besides the financial, to greater electronic interaction and, eventually transaction, with government. For example, one very prominent barrier is *a widespread lack of trust both in the security of the Internet and in the confidentiality and responsibility of the government in holding personal data given to it.*[8]

Modernising Government: Policy Forum Discussion

At the end of the on-line briefing on the web site the following questions were then asked.

- ❑ Many people have a lack of trust in the security of the Internet. What could be done to change this?
- ❑ In what circumstances might advertising on government websites be inappropriate?
- ❑ How would you feel if on-line access to government services were run by private companies? In what ways would this be positive/negative?
- ❑ Public interactive kiosk at a local level can allow electronic access to local government services for a large number of people. Would you use them? What might you use them for? Where would they best be placed (pub, Post Office, shopping mall, library, supermarket, specific locations etc)?
- ❑ What interactions with central or local government do you think could usefully be done electronically? How might they be enhanced on-line?
- ❑ Can you think of any brand new services that the government might deliver electronically?

Visitors to the site are the invited to join a live discussion forum on these issues. The Prime Minister's web site can be found at: HYPERLINK

Modernising Government within the UK Department of Trade and Industry: *Applying Knowledge Management Principles*

"Modernising Government" is an important initiative of the UK Government because it is an overarching strategy that sets out to reform the public service. The improvement of services, including those in electronic formats, is an important goal. According to the Modernising Government White Paper this new initiative is a program of reform for the future that will see better provisioning of services from all levels of government. While the key focus is on information and services delivery through one-stop shops, single contacts which link in to a range of government departments and use of electronic information-age services, the government has recognised that application of knowledge management principles will play a significant role in advancing the objectives. The following is a case study of one department using knowledge management (KM) to both improve their own internal operations and deliver more effective services to the public.[9]

One government department that has taken a lead role in this initiative is the Department of Trade and Industry (DTI) through its Knowledge Management Unit,[10] established in March 1999. This department, with their KM initiative to improve services within their department and with their clients in the private sector, qualify as information champions.

As identified by Pat Langford, Assistant Director of the Knowledge Management Unit, DTI has a mission to assist companies to survive and compete in the globalized economy. A working paper, DTI2000, published in March 1999, recognised that to be able to cope early in the new century with changes being brought by information and communication technologies and the shift in attitudes in the population, it was going to be important to change how departments operated. Implementing a knowledge management strategy became a central part of this change.

DTI's KM Unit harnesses knowledge from the department's own vast information resources and is seeking ways to extract knowledge from private companies which could be useful in servicing the public.

Achieving these goals means resolving many internal hurdles, not least of which is the fact that employees of this huge government agency are spread out in many buildings across London. Information is dispersed throughout these complexes and is not routinely shared.

On top of the separation of physical locations is the current silo approach to information management taken by the units within the DTI. In this organisational framework, data, information and knowledge move vertically but not horizontally. DTI wants to break down these barriers to create a sharing culture.

The KM Unit in DTI perceives that the Modernising Government Initiative is stimulating other wider changes within government. There is recognition that the type of people to promote into senior management positions will have to change. In the past, senior management has consisted largely of analysts who have had the ability to rationalise and put issues into a policy perspective. Creative and innovative people have tended not to be in these ranks. Now, says Ms. Langford, "what is needed most in these new environments are creative and innovative people who know and understand the new society that is emerging." She adds that KM implementation "celebrates innovation as much as it recognises the role of the analyst."

One of the first tasks of the DTI (KM) Unit was to end the hoarding of information by developing a strategy on how to create a sharing culture. They wanted to educate individuals on how to become a more valuable member of the team. The DTI (KM) Unit sought to teach people the skills to extract what they know, i.e. to draw upon their tacit knowledge. They recognised that people often aren't aware that they possess unique and valuable knowledge.

One early project the KM Unit is considering is the development of a comprehensive off-line and on-line yellow pages directory that effectively assists people making enquiries. At the moment it is very difficult not only to find the co-ordinates of any government employee, but also to find the right person in the department. The Yellow Pages Directory would lay out the duties of a particular position, a brief description, the person involved and contact numbers. Thus, a member of the public could do either a name or a function oriented search.

Another project is to set up a system on the Department's Intranet whereby all members of the different departments in DTI would be able to share papers written by staff. Currently, employees need special code numbers

to access different databases which are scattered and in different formats. Organising and codifying a common database of existing information with a good search engine would provide wider access to the department's knowledge assets, and would avoid expensive duplication of effort by allowing other employers to see what had already been done.

The KM Unit also wants the department to co-ordinate all its information gathering and information queries from the public. At the moment all information queries into DTI are done in isolation. By developing a "one-stop shop" approach, the KM Unit hopes the public will more easily get to the right site or, in the case of a person engaged in an off-line query, be directed to the right individual. If a member of the public or another government department calls an information line, the person answering will be trained in how to answer or direct the query. The employee would have direct on-line access and the ability to get the required referral immediately, with direct onward routing of calls.

With the Modernising Government Mandate coming from the Prime Minister's Office, there is leeway for departments to get needed funding and personnel. Langford says DTI will be growing as they bring in the needed resources to implement their plans. The approach they want to take is to create different projects for the types of knowledge gathering to be undertaken. This would also hold true for any departmental reorganisation to better utilise or exploit knowledge within DTI.

Langford also notes the value of high level leadership (in this case, the Prime Minister's Office in ensuring successful KM implementation). There is resistance to change that comes from senior levels of an organisation and, as Langford says, "It is difficult for senior executives to start thinking radically when in their minds things are ticking along quite nicely."

An interview with Pat Langford, some five months after initiatives began within DTI reveals substantive progress on a number of fronts.[11] Among specific projects underway five months later were:

Learning at DTI – an in-house "university" open to all DTI staff, combining instructors with on-line resources to acquaint staff with the principles of KM and use of the Internet;

ELGAR (Electronic Government and Administration Re-engineering) – a major upgrade of the information technology infrastructure (upgrading of computer equipment and move to a Windows NT environ-

ment from an outdated Windows 3.1 environment along with re-engineering of processes, including electronic documents records management);

Information Architecture – a re-design of how information within the department is managed to ensure that knowledge is properly captured and structured;
Human Resource Policies Review – a recognition of the need to re-vamp HR policies to formally recognise and reward behaviours that contribute to knowledge sharing;

"Yellow Pages" Directories – DTI is creating a directory where all staff will be identified by name, job title, job functions and areas of expertise, as well as telephone, and e-mail co-ordinates. Unique to this directory will be a personal web page for every employee to list their experience and skills (with photos of themselves, if desired) on a voluntary basis. The Department will encourage employees to participate in this web page program and the Knowledge Management Unit would have their web pages on-line by end of as an exemplar.

Round Table Event - DTI organised an event where 150 employees from all levels of the Department came together to exchange ideas about how to collaborate more effectively. DTI's Permanent Secretary participated in the event. This brainstorming session captured many work processes and how they could be improved. Subsequent focus groups are being used to refine ideas documented during the workshop. Another larger workshop of some 400 employees was being planned. DTI hopes to ensure a sizeable percentage of "knowledge management cynics" participate in this second event.

Knowledge Management Awareness Program – an Internet-equipped resource centre has been set up where KM workers can explain to other employees how to access and use Internet-based KM tools in their work.

COBRA – COBRA is a Lotus Notes-based media response system whereby the Department's senior management and press office will be able to respond more quickly to breaking news stories and events. It depends upon KM tools to quickly access relevant data and instantly make it available to senior officials and media relations staff.

Flexible Project Teams – DTI is trying to beak down "silo" mentality by establishing flexible project teams that "borrow" employees from other units.

Plant Data Exchange – DTI is beginning to build up data on companies the department deals with, including a log of which unit the company dealt with, who they corresponded with, what information or knowledge was exchanged. This process is designed to help the department understand its client base better and how to improve services to clients. A key question being asked of employees is to think about output – what trade and industry clients want from the department and how their needs can be better met.

A general theme running through all of these Initiatives is how to tie them in to the Modernising Government initiative. Langford acknowledges that this initiative has overtaken some of the department's own programs and is forcing the department to think more outside of the box and consider bigger issues such as the capability of the department to truly effect the necessary level of change within their own current resources. Questions being asked of all departments include "Are we doing enough, do we need specialised change managers and do we have all the skills to do it?"

An early general conclusion reached from this process is also the realisation that "great minds don't think alike" and the resulting need to build teams with very diverse people. Langford states that the department needs to promote people with "creativity and people skills, not just intellectual skills.

On a pan-government level, the Modernising Government White Paper also recognises that many of the changes in society are coming about because of information and communication technologies. The Cabinet Office's Central Information Technology Unit (CITU), responsible for developing and implementing the technological changes, has recognised that the citizen in today's environments wants interactivity.

This, and the need to disseminate knowledge quickly if it is to have value in policy making has led the UK Department for International Development (DFID) to back an Internet-based system which links development research and researchers directly to policymakers and development practitioners around the world through a new web site. Hosted by the Institute of Development Studies, the initiative is known as ID21 – or **Information for Development in the 21st Century.** Its key feature is a searchable on-line collection of short, one-page (500-word) digests of the latest social and economic research studies across 30 key topic fields. ID21 is now on-line and can be found at: http://www.ID21.org.

The Information for Development in the 21st Century is a prime example of knowledge sharing, without actually calling it by this name. This KM initiative came out of Cranfield University to capture the constant stream of development research findings of UK-based academics, consultants and Non-Governmental Organizations (NGOs). This, in turn, is contributing to an informed, interactive citizenry that can then participate in the democratic process at a higher plane than currently exists.

A THIRD INITIATIVE: eCitizen, eBusiness, and eGovernment

One of the initiatives to come out of the Modernising Government White paper is The Information Age Government Champions. This group is charged with defining a corporate IT strategy for the UK Government/Civil Service. The group comprises 36 senior government officials at board level within departments who have been designated to champion the information age government agenda within their departments and agencies. HYPERLINK "http://www.citu.gov.uk/modern-gov/whitepaper/4310.htm" The Modernising Government White Paper issued in March 1999 stated that the corporate IT strategy will focus on the needs of citizens and business and will encourage wider choice in access to public services. The strategy will maximise the benefits to both central and local government of a co-ordinate approach to information technology and procurement. In taking the strategy forward, the UK Government will work in partnership across the public sector and with the private sector.

On 14 February 2000 the Central IT Unit (CITU) released a consultation paper entitled e-citizen, e-business, e-government: A Strategic Framework for Public Service in the Information Age.[12] The paper recognises that the IT revolution has brought large changes to manufacturing and services industries around the world and society in general. The vision of CITU is to bring similar changes within the public service, a theme set out in Modernising Government. The paper recognises the need to deal with the citizen and to be able to be interactive with the citizen. There is a clear understanding that in the wired world the citizen is in control in terms of what they want. This includes high quality services which are accessible and convenient.

The consultation paper looked at the following:

- How services can be built around customer needs, not

government's organisation;

- ❑ Increasing choice in service delivery;
- ❑ How government can ensure that everyone is included;
- ❑ How government can make better use of information; and
- ❑ How government can go about making the changes.

The paper continues on the thematic messages set out in Government Direct and Modernising Government that services should be electronically delivered where possible while also recognising that a segment of the population will not want services in electronic format. Also, personal contact will also be paramount. In this respect, the paper predicate the use of electronic media to facilitate customisation this to deliver tailored services to an individual. The paper points out that there are increasingly new ways of accessing the Internet. The continuing development of new technologies to access the Internet means that government must ensure that their plans take into account the continuing changes. This is a difficult challenge considering the large amounts of money invested in technologies. There are many examples of governments spending millions and millions of their budgets for IT products only to see them become obsolete within a short period of time. One of the challenges of government is to deal with the built in obsolescence mechanisms inherent in new information technologies.

The paper also recognised that " new ways of doing business will change the relationship between individuals and government. Access to information will be guaranteed under the Freedom of Information Bill and government organisations will be more responsive to citizens' views." It also recognised the necessity for strong data protection law.[13]

CHAPTER TWO

CANADA: CONNECTING CANADIANS IN THE WIRED WORLD

A North American Overview

On the North American Continent, Canada and the US both rank as major global leaders in the area of electronic government. Mexico, the third country on the continent and a struggling economy despite the North American Free Trade Agreement, has so far failed to develop a communications infrastructure capable of serving the public. As of 1997, Mexico had a teledensity of just 11 telephone lines per person and just over 140,000 Internet users among its 93 million people.[14]

Canada and the US both outstrip all other G7 countries in Internet use among the population, and the governments of both countries have moved forward on extensive action plans to make government information more accessible on-line and to deliver services electronically. Both countries have also realised the significance of electronic commerce to future economic growth, although the conditions favouring such growth are markedly different in the US from those in Canada. A recently released report of the *Canadian E-Business Opportunities Roundtable,*[15] chronicles the structural reasons for a widening gap between Canada's eCommerce growth and the powerhouse U.S. e-business environment where easier access to venture capital, management and strategic expertise, the existence of anchor companies and eCommerce clusters, and a stronger entrepreneurial spirit have led to e-commerce revenue growth 38 times greater than in Canada.

Nevertheless, from a federal government perspective, both countries seem remarkably similar in the extent to which they have begun using new information and communications technologies to deliver information and services. Both countries have also made major strides in reorganizing government in an effort to reduce duplication of services, improve efficiency and be more customer responsive.

Electronic government (eGovernment) has, however, been largely a one-way street – with its major focus on *better disseminating the vast information resources of government to the public, and using new electronic*

means to transact business. Public-private sector partnerships are also beginning to flourish, especially in the US with its expressed government mandate to not engage in activity that the private sector could undertake (for example, the much vaunted US Post Office WINGS project has disappeared, to be replaced by a private sector partnership, delivering the same value-added services at a net-cost savings to USPS and the public).

There has certainly been, as a result of all of this, a tremendous speeding up of information dissemination. Hansard, the record of Canada's Parliament, is now on-line the next day with debates available from the web-site for those who could not watch it on television. Similarly with THOMAS, the US congressional record on-line. Political speeches, press releases, policy papers, studies, operational and statistical data, and other information are all now a click away for those with access to the Internet.

Despite this growth in electronic government, the next stage – electronic governance in the form of electronic democracy (eDemocracy or the democratisation of government by providing better opportunities for the citizenry to interact and influence government) – hasn't happened. Why not? Generally the focus of government departments and agencies remains largely to deliver the services prescribed by the government political apparatus, not to effect change through interaction. Departments and agencies are there to help the individual in accessing and using existing services. Where feed-back and interaction is sought, it is usually to identify and establish which services and which means of delivery offer the greatest value to the electorate. This, in itself, is a valuable exercise, since delivery of government services cost significant public funds and any measure of improvement can represent a significant cost saving.

This is not to say that electronic governance cannot and does not happen. However, where it does happen, it still occurs mostly through traditional means – political polls, reactions to political decisions expressed by the electorate. A recent Canadian government reversal, due to public outcry, of a policy designed to benefit professional hockey franchises is an excellent case in point. The public spoke through traditional means – floods of phone calls and letters to members of Parliament, and the government responded accordingly. However, the response was after the event. Governments still make little use of Internet technology to poll citizens or to obtain their views in a systematic fashion. One reason for not doing so may still be a perception that the Internet is accessible only to those with the resources to afford the technology. Certainly on-line use is still skewed to an affluent, non-demographically representative, population base.

This will change over time, however, and if governments do make the effort to move to the next level of electronic governance, it will provide one more reason for more citizens to want to interact with their governments electronically. In the meantime, *the delivery of government information to the public has reached an unprecedented state of achievement.*

Canada's Effort to be the World's 'Most Connected Nation'

We will make the information and knowledge infrastructure accessible to all Canadians by the year 2000, thereby making Canada the most connected nation in the world.

– Speech from the Throne, 1997

Background

Canada's approach to electronic government was first defined in a Speech from the Throne to open a new Canadian Parliament in January 1994, where the Liberal government laid out a strategy to address the challenges of the Information Highway.

In 1994, the Canadian government released a document entitled *Blueprint for Renewing Government Services Using Information Technology.* Canada's Treasury Board, the agency responsible for financial management and information technology for the federal government, had already identified some guidelines for the application of the new communications and information technologies across the full spectrum of government operations, including the electronic delivery of government services.

The government saw a need, however, to link and integrate government initiatives with private sector goals and opportunities. In 1994, the government created a 29-member *Information Highway Advisory Council (IHAC).* The Council consisting of business leaders and public interest representatives with a stake in information highway infrastructure and applications, was mandated to examine how the country could best use the advancing technology of the Internet and other digital technologies to meet the following objectives:

- ❑ Create jobs through innovation and investment in Canada;
- ❑ Reinforce Canadian sovereignty and cultural identity *(an important point for a country located next door to an economic and cultural powerhouse)*; and
- ❑ Ensure universal access at reasonable cost.

Accomplishing these objectives depended upon a blend of public and private sector initiatives, including new policy directions that would contribute to the right economic environment for information highway infrastructure and new multimedia content to flourish.

IHAC was asked to provide policy advice on the following specific issues and questions:

Competitiveness and Job Creation

- ❑ How fast should the advanced network infrastructure be built?
- ❑ How will network improvements be financed?
- ❑ What is the proper balance between competition and regulation?
- ❑ How can the federal government co-ordinate its activities with other governments?
- ❑ How can the Information Highway best be used to improve the growth and competitiveness of all Canadian businesses, especially small and medium-sized enterprises, throughout Canada?
- ❑ What opportunities does the Information Highway present to improve government operations?

Canadian Content and Culture

- ❑ What is the proper balance between competition and regulation?
- ❑ Should requirements for Canadian ownership and control of communications networks be reviewed?
- ❑ How should copyright and intellectual property issues be addressed?
- ❑ What measures are needed to support Canadian cultural and other content-based products and services?
- ❑ What controls, if any, should be placed on the information that is put on the network?
- ❑ How can the Information Highway best be used to improve the growth and competitiveness of all Canadian businesses, especially small and medium-sized enterprises, throughout Canada?
- ❑ How can Canadians be assured of universal access to essential services at reasonable cost?

Access and Social Impacts

- ❑ What controls, if any, should be placed on the information that is put on the network?
- ❑ How can the Information Highway be used to improve government services to the public?
- ❑ How can personal privacy and security of information be protected?
- ❑ How can Canadians be assured of universal access to essential services at reasonable cost?
- ❑ What consumer awareness and learning opportunities should be provided to enable Canadians to be effective users of the Information Highway?

Consumer Awareness and Learning

- ❑ What consumer awareness and learning opportunities should be provided to enable Canadians to be effective users of the Information Highway?

Research and Development, Applications and Market Development

- ❑ How quickly can Canadian industries move toward universal standards and how should these standards be determined?
- ❑ How can we ensure that Canadian information industries take full advantage of the R&D and technological development opportunities presented by the Information Highway?
- ❑ How can the Information Highway best be used to improve the growth and competitiveness of all Canadian businesses, especially small and medium-sized enterprises, throughout Canada?

The Council's report, released in September 1995, suggested a large role for government in setting standards and promoting Information Highway growth by establishing the right regulatory framework and environment. In its more than 300 recommendations, the Council also described a large role for government in directly using the Information Highway to improve the delivery of government programs and services to the public.

The Council foresaw significant cost significant savings and improved quality of service through the use of information and communications

technologies, as well other benefits from the development and deployment of new applications or services in areas of government responsibility, such as health care, education and training.

Specific IHAC Recommendations

Specific IHAC recommendations included the following:

- ❑ The government should be a role model in the cost-effective use and promotion of information technology.
- ❑ The government should accelerate the "single window concept" with potential users to ensure this approach will provide acceptable levels of access to electronic government services for a majority of Canadians.
- ❑ The government should ensure that all Canadians are able to communicate and interact electronically with its departments and agencies.
- ❑ The government should establish benchmarks for the delivery of services, including performance/productivity indicators that will demonstrate the long-term benefits and cost-effectiveness of information technology.

Training and Learning

The government should adopt a comprehensive strategy for lifelong learning delivered on the Information Highway for its operations and services and should create a mechanism by 1997 to ensure co-ordination of all federal government departments' and agencies' initiatives regarding use of the Information Highway for learning and training. Policies should be implemented to develop the use of technology-based learning and training solutions by:

- ❑ Transforming present training programs into a new media format;
- ❑ Sharing expertise and experience in adopting and using technology-based learning and training solutions; and
- ❑ Facilitating technical standards, including interface with databases and navigation tools for learning networks.

Policies should be adopted to assist in developing a technology-based learning and training industry in Canada, particularly for the benefit of small and medium-sized enterprises, by:

- ❑ Providing market information;
- ❑ Setting aside a growing percentage of expenditures for technology-based training and for procurement from private sector firms;
- ❑ Developing a national learning network based on existing infrastructure and learning centres; and
- ❑ Providing incentives such as loans.

Central Agency Leadership

A full-time, dedicated, deputy-minister-level official should assume the leadership in identifying technology-related issues requiring government attention, such as privacy, security, training, and develop processes for their effective resolution in consultation with departments and other stakeholders.

By 1996, the federal government had articulated a policy document in response to the IHAC recommendations. In a May 1996 report entitled *Building the Information Society, Moving Canada into the 21st Century,* the federal government, under the leadership of both Treasury Board and the Ministry of Industry, enunciated its vision, policy strategies and some early accomplishments related to an information highway strategy.

Initiatives and actions planned or taken by 1996 are listed in the chart shown on the following page.

Initiatives	Action	
	Taken	Upcoming
I Quick and Easy Access		
Seamless electronic government access		4
Availability of government information at public access		4
Canada Site on Internet	4	
Open Bidding Service	4	
II Electronic Commerce by Government		
Electronic commerce strategy for government		4
Electronic commerce in private sector		4
Public key infrastructure	4	
Business Number	4	
Intelligent transportation border crossing system		4
Customs Automated Data Exchange	4	
Optical card for Canada-U.S. traveller	4	
Direct deposit and standard payment systems		4
IV Improved Efficiency in Government		
V E-mail across government	4	
VI Locally Shared Support Service	4	
VII Common Electronic Information Infrastructure		
VIII Integrated approach to privacy, security, information access	4	
IX Technology Standards Program	4	

In December 1995, the government established its main access site on the Internet (http://canada.gc.ca), providing a single window for Internet users seeking access to government information and services including frequently requested forms, as well as direct links to other federal and provincial government sites. All federal agencies now have extensive web sites, providing access to detailed information and services. More than 200,000 public services have an Internet address.

Three government departments, Transport Canada, Revenue Canada and Citizenship and Immigration are now co-operating with their U.S. counterparts in intelligent transportation border crossing systems to speed customs, immigration processing and toll collection at land border crossings. With this system, information on a truck and its cargo will be forwarded electronically for processing before its arrival. When a truck equipped with the appropriate communications device reaches the border, its driver will be able electronically to pay the bridge toll, advise Customs and Immigration

of its presence, and if safe and legal, receive a green light to proceed.

Canadian Initiatives in the Connected World

The federal government has launched several major infrastructure and access initiatives in their efforts to be the most connected country in the world.

Community Access Program

The federal government's *Community Access Program* (CAP) has a goal to establish over 10,000 public access sites in rural and urban communities across Canada. Launched in 1994, CAP has already established over 4,200 sites in approximately 3,000 rural and remote communities and is a key component of the government's "Connecting Canadians" strategy - aimed at making Canada the world's most connected nation." The program is now being expanded to include urban centres with populations over 50,000.

CAP matching funds of up to $17,000 per site are available to eligible applicants such as educational institutions, public libraries, community organizations, and municipal and territorial governments. The community funds can include cash or "in kind" contributions such as facilities, equipment and staffing of public access sites.

SchoolNet

The *SchoolNet* program is designed to connect all public and secondary schools and libraries in Canada that wish to have Internet access. As of March 1999, program had achieved its primary goal of extending Internet access to almost 15,000 schools and over 3,300 libraries. The program is scheduled to helping to extend Internet access to individual classrooms by March 31, 2001. Schools and libraries have also received over 250,000 computers through a companion *Computers for Schools program.* This program is a collaborative effort led by Industry Canada in partnership with provincial and territorial governments, the private sector, and the educational community.

The program had to overcome significant technical hurdles, since some of the schools involved in the program are in rural or isolated regions of Canada where conventional Internet access is not readily available (satel-

lite technology was used in some locations).

The SchoolNet Website also provided access to more than 1,000 learning services and resources, including training and research tools aimed at educators and students. SchoolNet development is guided by a national advisory board of provincial and territorial governments, universities and colleges, and educational associations.

The site contains educational resources for educators and learners all across Canada, with interactive quizzes, projects and games that make learning fun. For example, students can tour a virtual museum or zoo, discover Canada's First Nations heritage, link to a wide variety of other sites, or share these learning experiences with other students around the world. The SchoolNet program also provides teachers with financial support to develop on-line projects, help educators find the best buys in new computer hardware or software and showcases best practices for integrating information technology in learning.

A *SchoolNet GrassRoots Program* will support the development of 20,000 on-line projects by March 31, 2001, providing opportunities for up to 5 million Canadian students to develop valuable ICT and employment-related skills (i.e. in web-site design and information management). For example, during 1999 a grade two class in Prince Edward Island requested funds to produce a web-site depicting original stories and illustrations. In October 1998, Microsoft Canada became a founding partner of the SchoolNet GrassRoots National Campaign when it announced $1,000,000 worth of funding to help the Program reach its goal.

Smart Communities Program

The *Smart Communities* program focuses on demonstration projects in 12 Canadian communities that was sheduled for selection in the spring of 2000 through a nation-wide competition. These communities - one in each province, one in the North and one in an Aboriginal community - would be chosen for their world-class visions and strategies on how to achieve economic, social and cultural improvements through the use of information and communication technologies. As such, they would become centres of expertise in the integration of information and communication technologies into communities, organisations and families. Smart Communities would also act as "learning laboratories" in which the innovative use of these technologies in community life and enterprise would be tested.

VolNet

Administered by Industry Canada, the *Voluntary Sector Network Support Program* (VolNet) is a joint undertaking of the Federal Government and the public, private and voluntary sectors. This new Federal Government program has a goal of helping 10,000 voluntary organisations to get on-line by March 31, 2001. This includes providing Internet connectivity, computer equipment, Internet support and skills development to organisations which do not yet have these tools. To support this initiative, the government allocated $15 million over three years for the program.

The primary focus of the program is the distribution of the *VolNet Service Package.* Under this package, eligible voluntary organisations will receive Internet access, computer equipment needed to get on-line, and basic support and training. These services will be delivered by a network of up to 30 community-based Internet 'champions' known as VolNet delivery agencies, that will be the primary contact for all individual voluntary organisations with the VolNet program. The program is still new and delivery agencies are still to be established in all provinces and territories.

Services Canada

Services Canada is the next wave of federal government Internet development in which all government and agencies will be linked to one secure, high-speed network that will deliver federal services over the Internet. The channel supporting this network is expected to cost $400 million to build and will be developed by a consortium of private sector companies. This massive on-line system is expected to be completed by 2004 and will allow users to *file income taxes, apply for employment insurance, and transact other types of business with the government through one portal. The latest security technologies, including strong encryption, digital signatures, time-stamping and signature validation will be built into the system.*

Lifelong Learning

In 1996 the federal government established the *Office of Learning Technologies (OLT)* within Human Resources Development Canada (HRDC), as a partner in building a culture of lifelong learning. OLT's mission is to "work with partners to expand innovative learning opportunities through technologies".

OLT's role is to raises awareness about the opportunities, challenges and benefits of technology-based learning and to act as a catalyst for innovation in the area of technology-enabled learning and skills development. OLT promotes use of learning technologies, supports assessment, research and testing, and acts to increase the availability and sharing of knowledge and quality information about learning technologies.

The organisation supports, in particular, opportunities to demonstrate Canadian learning products and services in partnership with developers, educators, employers, employees, trainers and learners, and also promotes development of *Community Learning Networks* (CLNs) which enable lifelong learning and community capacity-building through the use of network technologies.

Projects are usually developed in partnership with other organisations such as universities, colleges and other learning institutions; sector councils; labour; private sector and business associations; all levels of government; non-governmental organisations and community groups. Projects are generally cost-shared. Projects funded by OLT usually have broad impact or transferability and are designed to test the application and effectiveness of learning technologies in various settings, such as the workplace, community learning centres or homes, especially with regard to the needs of adult (or life-long) learners.

To support its efforts, OLT has created one of the most comprehensive web sites on learning technologies in Canada and sponsors on-line demonstrations of learning technologies at sites across Canada in conjunction with partners and developers. OLT also sponsors face-to-face and on-line forums and workshops on issues related to learning technologies.

The Community Learning Network initiative includes the funding of pilot projects, providing an information- and expertise-sharing resource, and a "CLN Toolkit" to help communities establish learning networks.

OLT aims to sponsor lots of individual projects in partnership with other organisations. Examples of projects sponsored to date include the following:

❑ ***A Strategic Technology Applications for Rural Telework (START)*** project involved a partnership between the College of the North Atlantic, the Open Learning and Information Network (OLIN), and OLT, which evaluated an interactive, web-based model to deliver existing college-level, home-based study program (Teleworking) to adult learners in

rural communities in Newfoundland and Labrador.

❑ A TeleLearning Institute Pilot Study at the University of Waterloo in Ontario, focused on emerging technology professions for two reasons: (i) knowledge workers who have a technology infrastructure; and (ii) *personal expertise* to support telelearning tools in the workplace and whose need for new learning structures is more pronounced than in established professions due to the rapid rate of knowledge development, the scarcity of more formal educational opportunities and associations, and the frequent lack of professional peers in the workplace.

❑ **A Project to test the Effectiveness of Interactive CD-ROM Based Learnware** to train production workers in the injection moulding industry. Although the results of using interactive CD ROM based learning product to teach employees of plastics companies the safe start up, moulding and shut down procedures for an injection moulding machine proved disappointing (Only 35.7% of those trained on the learnware achieved passing grades when they came to their practical hands on test) a great deal of valuable insight was gained. Summaries of all projects funded can be found on the HRDC/OLT web site at http://olt-bta.hrdc-drhc.gc.ca/publicat/reports.html.

One of the most interesting and interactive aspects of OLT's web-site is its on-line forums, where interested participants can discuss issues related to various aspects of learning and training, particularly *Community Learning Networks* and pose questions to OLT program managers. The forums section allows users to provide links to non-government sites and, hence, to broaden the range of discussion and knowledge shared.

Since life-long learning requires significant public involvement in both objectives and methods, this OLT initiative has recognised the critical importance of strong public interaction and represents an important stage on the road to electronic governance.

The Canadian government is also cognisant of the fact that in such a rapidly changing world new measures are needed to assess and deal with the multitude of impacts information technology is having. Areas of impact include the public administration of government, the electronic delivery of services and the new ways in which governments now have to deal with citizens who are now becoming used to interactive transactions. One of the tools being used to accomplish the transformation is knowledge management.[16]

Some Canadian Federal Government Initiatives in Knowledge Management

We need to develop resilient people who operate in nimble organisations where learning is considered a crucial asset. Most organisations, and the TBS and the federal government are no exception to this, are seeking to encourage knowledge-sharing at a faster rate than ever before, across organisational boundaries and disciplines.[17]

The emergence of the **Corporate Renewal and Knowledge Management Office in the Treasury Board Secretariat** is a significant development. There has been an informal, Interdepartmental Knowledge Management Task Force in existence for over two years. While the 40 members on this Task Force represent most federal agencies, the members have come largely from middle management and have not been seen as senior strategic decision-makers in the application of KM. With the emergence of the Office in the senior echelons of the Treasury Board, knowledge management is now working its way into the strategic thinking of the Federal Government. Support from this level means that the knowledge management agenda should move significantly forward in the subsequent months.

At **Human Resources and Development Canada (HRDC)** a group of Assistant Deputy Ministers, together with the Deputy Minister, Claire Morris, have established **a Knowledge Management Task Force** that cuts across all business lines and regions to develop related strategies to meet future challenges. Four teams are looking at:

- The design and production of knowledge;
- Human capacity;
- Delivery of information to clients and employees; and
- Governance and accountability issues.

The **Service and Innovation Initiative in Treasury Board** is being delivered, in conjunction with Human and Resources Development Canada, Industry Canada, and others, to ensure the integrated delivery of services to citizens, whether these services originate with the Federal Government, or with other governments and partners. Maximum use is being made of technologies that offer a user-friendly, timely and cost-effective interface.

Health Canada has launched a major **knowledge management initiative** in pursuit of a larger goal – the creation of a *Canada Health Infoway,* or Pan Canadian Health Information Highway. As described in the report, *Canada Health Infoway: Paths to Better Health, "the Canada Health Infoway can help significantly to improve the quality, accessibility, portability and efficiency of health services across the entire spectrum of care. [This report] is also about how the Infoway can enable the creation, analysis and dissemination of the best possible evidence from across Canada and around the world as a basis for informed decisions by patients, citizens, informal caregivers, health professionals and providers, and health managers and policymakers."* [18]

Health Canada is deploying several strategic initiatives to achieve its vision of effective knowledge management to expand the evidence base for health planning, improve policy planning and enhance services delivery. These include the following steps:

- **Develop a knowledge culture** including the establishment of a Chief Knowledge Officer, the creation of a capacity to improve and *implement knowledge strategy* (frameworks, priorities, plans), and to *lead knowledge culture initiatives* (communities of practice, knowledge-maps, knowledge sharing). Knowledge business specialists would ensure that knowledge, information and data are developed, found or acquired and that technology tools (discussion databases, intranet) are identified and built, to meet business needs.

- **Conduct analysis and research** by creating an internal capacity (staff, analytical frameworks, methodologies, publications, reports, briefing notes, seminars, conferences), influencing the national health research agenda, and developing skills (all staff), and "absorptive" capacity.

- **Create a health infostructure** by identifying, nurturing, investing and partnering in projects, consulting stakeholders, and developing and influencing policy and standards (privacy, security, connectivity).

- **Provide enterprise IM and IT services** by developing and maintaining architectures, infrastructure and tools.

While the above examples are of embryonic KM initiatives within the federal government, it is clear that government recognises the value of KM principles to adapt to the demands of this knowledge-based environment. Public sector organisations are beginning to capitalize on the four

identifiable elements of knowledge management:

- ❑ Collective information resources;
- ❑ The intellectual capital of individuals;
- ❑ The multitude of external resources available to government; and
- ❑ The input of citizens who now have the capacity to play an interactive role in the process of government.

It is also clear that *success of these initiatives will depend upon both leadership and commitment at senior levels of government organisations to break down barriers and "silo thinking". It will also require more refined use of one of the most important resources – the intellectual capital of people who work in the public service.*

Building on in-house knowledge presents a strong challenge. It is not sufficient simply to tell employees in an organisation that they need to share their knowledge. There has to be understanding as to what particular pieces of knowledge held by the individual are important to the organisation. Following are some basic principles that can be applied to this process:

- ❑ Recognising and building on in-house individual expertise;
- ❑ Formalising to varying degrees the harnessing of knowledge through the use of appropriate systems;
- ❑ Passing on knowledge;
- ❑ Developing knowledge from an individual asset into a corporate/organisational one;
- ❑ Encouraging the growth of an open corporate culture in which knowledge is viewed as being central to organisational development and to the efficiency of methods of business operation.

To be successful, KM must be embraced by the leadership of the organisation. More importantly, it must be a key component in the strategic vision of the organisation. An additional, vital component is that there need to be designated officials and supporting staff to reorganise the organisation and implement the principles of knowledge management to maximum benefit.

It is inherently clear that virtually every employee is a potential source of data, information and insights that constitute, in one form or another, a source of knowledge that is or could be invaluable to the goals and aims

of the organisation. The degree to which an organisation manages knowledge to its advantage and forwarding of its strategic vision, is the degree to which the leaders of the organisation can draw upon this source of potential wealth.

Electronic Service Delivery On-line Database

The Institute of Governance, located at the University of Ottawa, recently announced the setting up of a Clearing House for Electronic Service Delivery.

In their announcement the Institute announced that the Electronic Service Delivery (ESD) Clearing House is now on-line. This is a one-stop shop which provides a direct link to the best new research, case studies, policies and tools in electronic service delivery today.

Born as a project of the Public Service Chief Information Officers Council (PSCIOC) and developed by the Institute of Governance (IOG), the ESD Clearing House provides a unique opportunity for resource sharing and collaboration across governments and jurisdictions.

The Clearing House is available on-line in the IOG's existing web site for governance issues, Policity.com (http://www.policity.com/esd), where it is sure to become an essential tool for program managers developing ESD in any department.

"Last year's PSCIOC Lac Carling Congress an annual conference bringing together the banks, municipal, provincial and federal governments and the IT vendor community to establish "best practices" for e-government-recognised the importance of ESD in today's public service and sparked the idea for the Clearing House. People no longer want to wait in line for service at government offices. They expect service that fits with their busy schedules, is easy-to-use and available any time of day. If government managers want to produce the best service delivery for their programs, they have to become aware of the resources, policies and research available to guide them." [19]

The PSCIOC saw the importance of resource sharing across jurisdictions and approached the Institute Of Governance to develop a web site showcasing initiatives and information from across the country. After several months of design and planning the ESD Clearing House is now on-line.

Content is updated regularly, and currently includes resources from the federal and provincial governments, the United States, Australia, Singapore, United Kingdom and some Canadian municipalities.

Some Regulatory Measures

The government has also moved extensively into electronic commerce as the preferred means for the government to conduct its business with citizens and the private sector. To facilitate this, the government has moved to resolve the technical and policy issues required to establish a secure means of electronic communications with government, including use of digital signatures. Their public key infrastructure is currently being put in place. Use of single business identification number (BIN) by private sector businesses starting in 1997 has paved the way for one-stop electronic service for businesses.

Canada has had a Privacy Act covering the federal public sector since 1983. All but one of the provinces and all the territories have similar laws. However, up until April 2000, only Quebec had privacy laws that also covered the private sector. The federal government set out to remedy this. There is now federal privacy legislation on the books in Canada that seeks to create secure environments when people go on-line to engage in transactions. The new privacy act sets out clear rules on how personal information is to be treated and gives citizens the right of access to, and correction of, their personal information.

The Protection of Personal Information and Electronic Documents Act, C-6, is an extensive piece of privacy legislation which goes well beyond simply protecting on-line transactions. The Act covers all forms of records, electronic records included. This new law will initially cover the federally regulated private sector. Within three years after coming into force the law will then extend to all organisations that conduct any form of commercial transactions across provincial borders. The federal law will apply if a provincial government does not have such a law in place. It is expected that most of the provinces in Canada will develop their own legislation within the next few years.

The legislation being proposed by the federal government is expected to comply with the European Directive on Data Protection. That Directive contains language that states that personal information on European citizens may not be transferred to a jurisdiction that does not have adequate privacy protection standards. In Canada the government has opted for

legislation. In the United States the Administration has currently rejected the need for legislation but are pushing companies to develop comprehensive privacy policies. The US government is currently in negotiations with the European Commission to reach an agreement on what standards will be necessary to comply with the demands of the European Data Protection Directive.[20]

CHAPTER THREE

THE UNITED STATES OF AMERICA: Electronic Government Within the World's Largest Internet Economy

"Our basic theory has been that we ought to have a government for the Information Age that is smaller, that lives within its means, but that actually is capable of doing more of what needs to be done. We believe what needs to be done is that we should focus mostly on giving people the tools they need to solve their own problems".

– President Clinton,
remarks to Global Forum on Reinventing Government,
Jan 15, 1999

Background

Of all knowledge-based economies, the United States, in most respects, should be best able to take advantage of *on-line government services delivery and electronic governance.* OECD data indicates that, in addition to being the world's most technologically advanced country with the strongest economy, the US dwarfs other G7 countries in both personal computer use and Internet use. [21]

At 149 users per 1,000 inhabitants (1997 data), the US has more than twice the Internet penetration of the UK, Japan and Germany. The US also has more than eight times the penetration of France and Italy (France is now planning the evolution of its popular but proprietary Minitel system, used by more than 6.4 million citizens, to an open Internet standard). Only Canada comes close to the US in Internet penetration, achieving a level that is 99.5% that of the US (other sources now put Canada ahead of the US)[22]

Within government, the Clinton-Gore administration has made re-inventing government and electronic services delivery initiatives a major federal policy goal. Vice President Al Gore's *National Partnership for Reinventing Government* program has been a key component of this initiative.

Originally known as the National Performance Review (NPR), the initiative was started early in President Clinton's first term (March 1993) with an initial task of creating "reinvention laboratories" within agencies to pilot innovations in service delivery and reduce red tape. The initial focus was clearly on cost-cutting, leading to a federal workforce reduction of some 250,000 positions, and a 50% reduction in internal government regulations. By 1995, federal agencies had reported a savings of approximately $58 billion.[23]

In the President's second term, NPR efforts were more narrowly concentrated on high-impact/high visibility agencies such as the Internal Revenue Service, the Weather Service, the Customs Service, the Park Service, the Patent and Trademark Office, the Occupational Safety and Health Administration, and the Food and Drug Administration. Still the focus remained on cost-cutting, streamlining and improved customer service standards.

In late 1998, NPR shifted its *focus to the improvement of services delivery by integrating government services delivery across functional lines.* Some specific goals of this new "seamless service delivery" approach include:

- **Reducing food-borne illnesses** by 25% through a Food Safety Council representing eight other agencies with jurisdiction over the safety of Americans' food supply;

- **Improving access to clean water** for Americans with an interagency committee representing a number of agencies responsible for water quality;

- **Reducing crime** by an additional 12 percent with new technologies and through federal agencies working collaboratively with state and local police;

- **Partnering with state and local authorities** on a new national training, education, and employment system with integrated service delivery; and

- **Expanding a "Hassle Free Communities" pilot project** currently in three communities (Dallas-Fort Worth, Kansas City, and Seattle) to 50 cities by January 2001, benefiting more than 120 million Americans. Hassle free communities use federal,

state and local partnerships to deliver one-stop shopping for public services – when, where, and how citizens want them.

The government is also striving to make all government services more accessible to the public through on-line delivery, with increased use of telephone technology, neighborhood kiosk and the Internet. By 2001, the government expects 40 million Americans to be using on-line transactional tools (Nielson/CommerceNet estimates there now are more than 70 million Americans on the Internet[24]).

The initial thrust of NPR also required an on-line infrastructure strategy and investment. In September 1993, the **Information Infrastructure Task Force** (IITF) was formed by the Clinton Administration to **implement policies and initiatives necessary for the deployment of the National Information Infrastructure (NII).** The nine policy objectives for the NII included several policies related to delivery of government services. These were:

- ❑ Extending the "Universal Service" concept to ensure that information resources are available to all;
- ❑ Promoting technological innovation and new applications;
- ❑ Promoting seamless, interactive, user-driven operation;
- ❑ Ensuring information security and network reliability;
- ❑ Co-ordinating with other levels of government and with other nations; and
- ❑ Providing access to government information and improving government procurement.

Concerning the last policy goal of improving access to government information, the NII Action Plan specified that:

The Administration will seek to ensure that Federal agencies, in concert with state and local governments, use the NII to expand the information available to the public, ensuring that the immense reservoir of government information is available to the public easily and equitably. Additionally, Federal procurement policies for telecommunications and information services and equipment will be designed to promote important technical developments for the NII and to provide attractive incentives for the private sector to contribute to NII development.[25]

NII initiatives began just as the Internet was beginning to emerge as a widely accessible information tool (Mosaic, the first graphical web

browser was introduced in 1993 and the first version of Netscape Navigator released in 1994). Since 1993, global Internet use has increased by rates varying from 25% in 1994 to 96% in 1996 and 45% in 1999[26] is now doubling every year.

Specific initiatives recognised the potential of future Internet growth, but were linked to the status of the Internet as it existed in 1993 and the immediate challenges of moving vast storehouses of information into an on-line environment. Specific initiatives in this area included the following:

- Improve the Accessibility of Government Information;
- Upgrade the Infrastructure for the Delivery of Government Information;
- Enhance Citizen Access to Government Information; and
- Strengthen Inter-agency Co-ordination through the use of Electronic Mail.

Improve the Accessibility of Government Information

Inter-agency efforts were started to *ensure that the right (ie. accurate) information is stored and available.* To help the public find information, a virtual card catalogue was being developed to indicate the availability of government information in whatever form it exists.

Upgrade the Infrastructure for the Delivery of Government Information

The first initiatives were to *enact legislation to improve electronic dissemination of government documents* by the Government Printing Office, followed by other steps to encourage federal agencies to convert their public information into electronic form and disseminate it over the Internet. "FedWorld," an electronic bulletin board established by the Department of Commerce's National Technical Information Service (NTIS), which links the public with more than 100 federal bulletin boards and information centres was also updated to enhance public distribution of scientific, technical, and business-related information.

Enhance Citizen Access to Government Information

In June 1993, the Federal Office of Management and Budget (OMB) prescribed *new polices designed to reduce the costs to the public of obtaining government information.* In providing information, agencies should

seek to recoup only the costs associated with the dissemination of information, not its creation or collection. Other inter-agency efforts were also started to afford greater public access to government information, including one project which seeks to turn thousands of Federal agency field offices into **Interactive Citizen Participation Centres,** at which citizens can communicate with the public affairs departments of all Federal agencies. Another later example of these efforts was OMB's 1996 launch of the **Economic Statistics and Social Statistics Briefing Rooms** which, for the first time, presented current releases of key economic and social indicators by themes, not by agencies, overcoming previous difficulties that even frequent data users, such as economic forecasters or social science researchers, had in locating and accessing statistical information.

Strengthen Inter-agency Co-ordination through the Use of Electronic Mail

An inter-agency co-ordinating body was established *to incorporate electronic mail into the daily work environment of federal workers.*

Role of Government Information Technology Services (GITS)

In November 1993, the **Government Information Technology Services** (GITS) Working Group was also established to implement the information technology aspects of electronic government. The GITS mandate was to *lead the development of a national IT vision; guide the government wide efforts to provide an effective, responsive, and efficient electronic government for citizens to use; and develop and implement information technologies that empower a customer-driven government, rather than restrain it.*[27]

A major GITS focus was improvement of how the US government acquired IT systems. A 1995 examination of large scale IT acquisitions by Senator William S. Cohen, released in a report entitled "Computer Chaos," was highly critical of the federal government's IT acquisition management process. GITS efforts contributed to the new Information Technology Management Reform Act of 1996 which replaced outdated 1960s legislation, providing more agency flexibility in acquiring IT systems and requiring all federal agencies to appoint Chief Information Officers (CIOs) who will be responsible for oversight, co-ordination, and management of IT programs. The new law also authorised establishment of an interagency group, the Government Information Technology Services Board, to identify and promote the development of innovative

technologies, standards, and practices across agencies and governments and with the private sector.

Results from GITS Initiatives

The following examples of US government on-line initiatives demonstrate the focus of the government to link information functionally across agency lines. Where previously information was "stove-piped" and inaccessible except through exhaustive individual web-sites searches, government data is now easily obtainable. This focus on access seems to be the dominant characteristic of current federal government efforts in electronic government.

(a) Electronic Benefit Transfer (EBT)

A GITS EBT Task Force worked with over 400 state and federal government field officials to discuss models for electronic benefits transfer systems. This led partnerships with the Southern Alliance of States (SAS) to develop, implement and operate a SAS EBT Prototype System as a part of the nationwide Benefit Security Card system. Other regional coalitions have since been formed to implement similar capabilities in all 50 states.

(b) Smart Cards

Smart card technology is now being used in several states for public assistance payments. Public assistance recipients are given an Electronic Benefits System (EBS) card to withdraw their benefits and to use at grocery stores. The card replaces traditional paper checks and food stamp coupons, providing the user with an expanded set of secure benefits management options. GITS also examined issues regarding the development and implementation of an "electronic money" capability for the NII for other types of purposes.

(c) Web Interactive Network of Government Services (WINGS)

The **Web Interactive Network of Government Services** (WINGS) program, developed by the United States Post Office (USPS) began with much fanfare in June 1995. The goal was seamless services delivery on a World Wide Web site (http://www.wings.usps.gov) – now no longer accessible. The idea was to give people access to government services when they need them - such as when they are looking for a new job, when

they want to get a driver's license and when they are ready to apply for retirement benefits. The access would be through personal computers in homes and offices, and also through a network of public computer terminals and information kiosk in libraries, shopping malls, and post offices. WINGS was intended to allow citizens to transact business with local, state, and federal agencies via the Internet and provide a "one-stop-shop" for government services. Through one window, the citizen could submit a postal address change to federal, state, and local agencies; change vehicle registration information; obtain information about local schools; register to vote; find out about trash pick-up schedules, police and fire services, and local tax requirements; and potentially even get a list of moving companies.

WINGS seems to have disappeared without a trace. A search of the USPS web-site brings no mention of how the concept was disbanded. However, USPS has linked up with MoversNetTM – a commercial service offered by Targeted Marketing Solutions, Inc. (TMSI). According to TMSI, this cooperative effort between the private sector and the Postal Service reduces postal operating costs since advertising pays for the creation and enhancement of the MoversNet site and pays for services such as change of address forms, the costs of which were previously covered from Postal Service revenues.

(d) Kiosk Programs

Federal and state governments are developing approaches to provide information and services through customer-activated kiosk, which are modelled after automated teller machines. The Info/California kiosk has generated major benefits for the state, dramatically lowering the costs of state information while improving customer service. The cost of motor vehicle address change costs went from $5 in person, to $2 by mail, to $1 by kiosk. In Iowa, the cost of issuing a birth certificate went from $6 manually to $1 by kiosk. Work is now underway with the American Library Association to use member libraries as pilot locations for kiosk for inter-governmental services.

(e) FedWorld

FedWorld provides access to multiple sources of federal government information, at no charge to the user, in a technical environment that supports the broadest possible range of users without regard to the technology platform. It is the government's electronic marketplace for delivering

information through the widest range of access methods possible.

FedWorld now disseminates information for all the Cabinet agencies and a host of other federal agencies. In addition to its normal services, FedWorld activated a Web server (http://www.fedworld.gov) in June 1994 that provides a government home page, including hypertext links to all known federal Web services, organised by subject, with gateways to more than 400 other government databases.

Electronic services and information accessible through FedWorld include: a Nuclear Regulatory Commission (NRC) system that enables the public to participate directly in an interactive rulemaking process; the "World News Connection," which provides quick and easy access to time sensitive news gathered by the federal government from thousands of non-US media sources; the "Federal Training Mall," which provides a central source for personnel information, training information and products, and training development and delivery services;

- ❑ Safety data from the Federal Aviation Administration (FAA);
- ❑ Cancer research results from the National Cancer Institute;
- ❑ Wage determination information from the Department of Labor;
- ❑ Clean Air Act information from the Environmental Protection Agency;
- ❑ Vacancy announcements from the Department of Commerce; and IRS tax forms and publications.

IRS tax forms and publications are apparently the most sought after information on this site, saving citizens countless hours otherwise spent locating the needed forms and instruction. The downloading of these forms, often by citizens using their home computers, has broken records for the numbers of transactions using FedWorld electronic services.

(f) US Business Advisor

Another innovative Web site providing one-stop shopping is the US Business Advisor (USBA), which provides electronic access to government information that affects business operations. This site (http://www.business.gov) contains detailed information of interest to business including information on business development, financial assistance, taxes, laws and regulations, international trade, workplace issues, and other topics with direct links to other agencies.

(g) US General Store

The concept of the USBA is being expanded to a U.S. General Store concept intended to provide one-stop government services to business in a retail environment. A pilot site (http://www.hcad.org/usgs/genstore.htm) has been established in Houston to assist retail businesses with contracting, certification and grant research; Internal Revenue Service for all types of tax matters; counselling and small business financial planning; and other issues. The city of Houston is home to over 100 federal agencies who participate in providing their services through the General Store concept.

(h) White House Home Page

The White House Home Page (http://www.whitehouse.gov/wh/welcome.html), which opened in October1994, is a highly visible location to access federal government information, using a powerful search engine and a link to the Government Information Locator Service (GILS), which assists users in identifying information that is not on the Internet. Theme pages enable citizens to locate functional information across agency boundaries, without the limitations of bureaucratic structures. Users can access many presidential documents and all Presidential Executive Orders. Improved access to current information is also available (for example, users can access economic indicators in near real time, which is more useful than the official monthly release).

(i) Federal Information Centre (800 service)

The Federal Information Centre (FIC) program provides answers to questions about the federal government to those without Internet access. Its service covers all 50 states via a single, toll-free number (1-800-688-9889).

(j) Law Enforcement/Public Safety

Through the Federal Law Enforcement Wireless Users Group (FLEWUG), the federal government is establishing a national law enforcement/public safety network, using a wireless infrastructure in coordination with local and state advisory boards. This initiative will eliminate redundant, costly networks; make better use of scarce frequency spectrum resources; and improve communications among law enforcement and public safety officials, particularly in times of natural disaster or

emergency response. Estimated savings are 25 percent of the current operational costs, which range from $30-40 billion.

(k) Simplified Tax and Wage Reporting System

To promote integration of federal, state, and local government tax filing requirements, a simplified Tax and Wage Reporting System (STAWRS) project has been started, which is intended to reduce the total annual tax reporting burden on employers from an estimated $15B a year to $1B. The primary project focus is to develop a single point of filing capability, allowing businesses to fulfil all tax filing responsibilities by sending data in a single transmission. All US states are now participating in STAWRS.

(l) National Environmental Data Index

A National Environmental Data Index (NEDI) (http://www.nedi.gov) has been established to link users to various agency databases, providing a high level view of available data, and shows users what information exists. More than 10 major government departments and agencies have furnished their environmental data holdings to this web-site.

(m) International Trade Data System

The Customs Service is the lead agency for a project, in which 56 different US agencies are participating to streamline and standardise new processes incorporating leading edge technologies, such as the use of electronic data interchange and intelligent transportation systems, to speed the flow of trade.

(n) Government wide E-Mail

The federal government has put in place policies and implemented plans to replace vertical (stovepipe) e-mail structures with an "electronic spider web" structure in which affinity groups can be linked and virtual government can evolve.

(o) Weather Service

Everyone cares about the weather, especially in the U.S. where an overabundance of violent weather activity can have tremendous economic, environmental and public safety impacts. The National Oceanic and Atmospheric Administration (NOAA) oversees the National Weather

Service as well as the National Environmental Satellite, Data and Information Service and other agencies responsible for oceanic and atmospheric research and coastal fisheries. The Weather Service alone employs 4,800 people with an operating budget of approximately $680 million. Each year the Weather Service issue more than 734,000 weather forecasts and 850,000 river and flood forecasts, along with between 45,000 and 50,000 potentially life-saving severe weather warnings.

In 1995 NOAA released a strategic plan for 2005 that includes a complete modernisation of weather data collection, analysis and dissemination technologies (currently a massive but archaic system). The advanced Weather Dissemination System will provide timely, accurate weather information through a community file server designed for use by public officials. High-resolution user-friendly graphical displays will allow local government and state agency officials to make informed decisions on the protection of life, property and natural resources. NOAA advanced weather information will be integrated with geographical data from local sources and emergency management warning plans. As part of this modernisation, in January 2000 NOAA announced procurement of a new supercomputer that is five times faster, and eventually will be 28 times faster, than its predecessor, allowing a 10% improvement in predicting temperatures, humidity and pinpointing when, where and how much rainfall will occur. This new technology will enhance the operations of an organisation that already provides on-line access to the latest weather information, including hurricane and tornado activity on a constantly updated basis.

A visit to the NOAA site reveals that it is already a highly sophisticated source of on-line information for the public about weather and other climatic conditions. Given the importance of accurate weather information to the public, a quick tour of the Meteorological Service of Canada site and the U.K. "Met. Office on the Internet!" Reveal comparable information.

(p) Access America

In early 1999, the government launched an "Access America" series of sites, including the main site (www.accessamerica.gov), a site specifically for students (www.students.gov.) and a site for seniors (www.seniors.gov). This program initially piloted the integrated delivery of a suite of services in 5-10 colleges, to be expanded in the future. Access America for Students provides one-stop access to government information for spe-

cific needs, including recreation (www.recreation.gov), consumers (www.consumer.gov) , businesses (www.business.gov); and international trade (itds.xservices.com). The site helps students transacting business with government electronically such as filing taxes (www.irs.ustreas.gov), applying for student loans (www.ed.gov/DirectLoan/), and changing residential addresses (www.usps.gov). [28]

CHAPTER FOUR

HONG KONG: *DIGITAL 21*

Introduction

As a highly developed country with a vibrant economy, Hong Kong is a good example to study in the Asian region. Hong Kong was chosen as an area because it has been effectively using IT within government for a number of years. The focus in this chapter is on the electronic delivery of services as opposed to the use of new information technologies for eGovernance in general or stimulating the economy. Following is a snap shot of recent developments in service delivery and planned implementations.

Hong Kong is a bilingual society and offers services and information in both official languages (English and Chinese). Their unique position is that they are able to use English to communicate with, and obtain information from, most places in the digital world. Hong Kong is also capable of co-operating with other Chinese communities, and acting as a digital intermediary in linking the Mainland of China with the rest of the world. Hong Kong is also a free and market-based economy allowing the free flow of information. This is a key important factor in a world where knowledge drives economic growth.

Information Technology Strategy Overall: *Digital 21*

Digital 21 is Hong Kong's strategy for the implementation of Information Technology (IT) strategy. In 1997 and 1998, Hong Kong's Chief Executive, in his policy address to the Legislative Council, stated his vision to make Hong Kong a leader in the information world. His strategy was to encourage and assist the private sector in a move towards electronic commerce (eCommerce). He perceived that Hong Kong was falling behind in this regard, and saw the importance of using IT to help Hong Kong retain its competitive edge.

The result was the setting up of the Information and Technology Broadcasting Bureau (ITTB). The goal of the ITTB is to lead and coordinate the work of all those in the government involved in IT and the related areas of broadcasting and telecommunications. To assist ITBB, an

Infrastructure Advisory Committee (IIAC) was established in August 1998.[29]

The ITTB, in Digital 21, *"have set out their vision, initiatives and targets of how government, business, industry and academia can work together to make Hong Kong a leading digital city in a globally connected world."*[30] Their all encompassing strategy is based on four enabling factors:

- Developing a high capacity communications infrastructure;
- Stabilising an open and secure common interface for electronic transactions;
- Empowering people with the know-how to use information technology (IT); and
- Nurturing a culture which stimulates creativity and welcomes advances in the use of IT.

The focus here is on the work of the ITTB in setting up their electronic service delivery programs. For a full analysis of the Hong Kong's overall information technology strategy see: Digital 21, HYPERLINK "http://www.info.gov.hk/itbb http://www.info.gov.hk/itbb"

Electronic Service Delivery

The ITTB plans to roll out some very specific **electronic service delivery** programs by October 2000 to ten (10) agencies of the Hong Kong government. The Electronic Service Delivery infrastructure is being developed with private sector participation. A contractual arrangement was made with private sector firms in December, 1999. The features of the infrastructure are described below:

It will enable *the public to obtain services through various channels,* including but not limited to the personal computer, interactive public payphone or television. (As of January, 2000 citizens of Hong Kong can pay their bills to a number of government agencies over the telephone: see "http:/www.info.gov.hk/" under the interactive directory. Arrangements have been made with financial institutions for the payment of the bills).

The *facilities will be interoperable, secure* and *reliable.* Using the facilities to be provided and following the interface standards, one can use diverse access means to obtain services provided by different agencies. The public will find a more efficient and effective alternative to the con-

ventional form of public service delivery. The new modes of transaction will be as secure and reliable as the conventional paper-based form.

The *interface standards used in the infrastructure will be open market-based standards.* The use interface of this infrastructure will be bilingual.

The overarching policy of IT implementation in Hong Kong is to realise the following:

- ❑ Improve efficiency and quality of service; and
- ❑ Contribute to the development of eCommerce in Hong Kong.

Interactive Government Directory

The interactive government directory provides a broad range of services, including local transportation services with maps and videos. For example, one service offered on the web page is maps, which will show a citizen arriving at the airport the best route home. The interactive service site has proven to be quite popular and contains over 100,000 web pages. Electronic services through the web site are possible as there are over 700,000 Internet accounts (as of October, 1999). It is estimated that there are over a million users. The population of Hong Kong is just over 6 million people so the on-line public represents one fifth of the population. There is a 34% penetration rate of households with PCs which means that to offer widespread services there is a need for alternate means of access to government web sites. This has resulted in the setting up of computers in public places to allow wider public access such as in libraries and other similar spaces.

The popularity of the web site is due to the fact that the ITBB recognised early on that there had to be substantive content on an attractive and useful web site for it to be used by the citizen. But apart from web access to electronic services there will also be information kiosks in places such as in shopping malls or supermarkets. The ITBB is very conscious of the need to have enough channels to deliver electronic services even if members of the public do not have computers at home. [31]

Based on the premise that for the citizen to use the service it must be useful, the electronic services to be offered in late 2000 are envisaged to include:

- ❑ Registration and renewal of motor vehicle licenses;

- ❑ Registration and renewal of driver's license;
- ❑ Transportation information;
- ❑ Financial advice;
- ❑ Employment opportunities (job seeking database); and
- ❑ Submission of tax payments and tax returns.

Each of these agencies will allow the citizen to conduct the transaction on-line. In turn, each of the departments provide its own content, while the ITBB acts as the middleman in setting up the system. The EDS hardware is set up and run by a private sector company, but the entire process is overseen by the government. The overall web site is operated and managed by the government itself who ensures that the content is kept updated. There is the awareness that as soon as a web site becomes outdated it loses its effectiveness and usefulness. For example, the phone numbers of government officials can be found on their on-line directory. It is important for this to be kept up to date to provide good service to the citizen.

These are the more popular services to be offered in the interim. In the future the ITBB will work out more services that can be delivered by electronic means. Hong Kong has also implemented key legislative and policy initiatives to ensure secure networks and trust by the citizen in engaging in on-line activities. Hong Kong passed and *implemented a Data Protection Law in 1996* which is in alignment with the European Commission's Data Protection Directive. The government has also *initiated a public key infrastructure* which is set to roll out during 2000.

CHAPTER FIVE

MALAYSIA: *VISION 2020*[32]

Introduction

Malaysia is a good case study of a country seeking to facilitate information technology at many levels. The purpose of this chapter is to examine the proposed programs for the usage of information technologies for both electronic governance and the electronic delivery of services to the citizen.

According to an article in the COMNET-IT Forum Newsletter (Issue 1, 4th Quarter 1998), in the Malaysian context, Electronic Government refers to:
"A multimedia, networked, paperless administration linking government agencies within Putrajaya (the new administrative capital of Malaysia) with government centres around the country to facilitate a collaborative government environment and deliver efficient services to businesses and citizens."

As with many other countries developing IT programs, the *main purpose is to facilitate transactions between citizens and the government,* to help business to develop eCommerce, to compete in the global information economy and thus facilitate growth in the Malaysian economy. Through the linking of government ministries via a common database, it is hoped this will improve the speed and quality of the decision making process within government.
As with many other countries, the IT programs spring from a broader strategy. This first section looks at the origins of the current developments.

Policy Framework for Malaysia's ICT Initiatives

Vision 2020: A National Development Agenda

Vision 2020 embodies a National Development Agenda with specific goals and objectives for long term development.

On 28 February 1991, at the inaugural meeting of the Malaysian Business Council (MBC), held in Kuala Lumpur, Prime Minister Mahathir, who is also the Chairman of the MBC, unveiled his 2020 Vision for Malaysia. Vision 2020, to all intents and purposes, is a master plan for transforming Malaysia into an industrialised country by the early twenty-first century.

Vision 2020 outlines nine challenges to be met in Malaysia:

1. Unity: Bangsa Malaysia (one people)
2. Self-confidence and self-respect
3. Mature consensual oriented democratic society
4. Moral and ethical society
5. Scientific and progressive, innovative and forward-looking
6. Mature and liberal society
7. Caring society, social priority over individual
8. Economically just
9. Prosperous: robust resilient and competitive economy

Vision 2020 is a consistent and logical continuation of older policy guidelines.

Vision 2020 has a 30 year time frame stretching through the period 1992 - 2020.

Vision 2020: Aims

- ❑ Making Malaysia a fully developed, industrialized and knowledge rich country by 2020;
- ❑ Balanced growth;
- ❑ National unity; and
- ❑ Malaysia as role model for socio-economic development.

Chosen Strategy to Achieve *Vision 2020*: Leapfrog into Information Age

Seventh Malaysian Plan, including the National IT Agenda (NITA) (1996-2000) promises to realise the following:

1. Ensure widespread diffusion and application of IT within and across sectors;

2. Develop a National IT Action Plan (involves development of MSC, smart cities, IT culture);

3. Expand IT Education and Training in line with the expected rise in demand;

4. Review laws hampering IT development;

5. Promote local IT development;

6. Develop MY into international IT hub; and

7. Enhance IT awareness among population.[33]

Proposed Funding for *Vision 2020*

Proposed funding for *Vision 2020* is allocated to ministries and government agencies for investment in IT-related programmes and projects in the 7th Malaysian Plan. An estimate of RM 25.4 billion is being invested in the developing telecommunications infrastructure

Implementing *Vision 2020:* Mulitmedia Super Corridor (MSC) "Malaysia's Gift to the World"[34]

Basics

Multimedia Super Corridor (MSC) was launched on August 1, 1996, at a time of immense optimism Asian growth miracle was in full swing.

Finance

The finance for realising the MSC has been estimated at RM 20 Billion (estimate by Businessweek); As of December 1999 RM $4.7 Billion had been spent by the government.

Rationale

In the Malaysian the MSC is the core initiative to leapfrog Malaysia into the "Information Age."

Geography

The MSC covers a "corridor", stretching 15 kilometres wide by 50 kilometres long, extending from the Kuala Lumpur City Centre (KLCC, shopping-office-entertainment urban development project in the centre of KL, which houses the Petronas Towers, the world's tallest building) down south to the new international airport (KLIA).

Objective

The objective of the MSC is to build an integrated environment with all unique elements and attributes necessary for a perfect Multimedia Climate.

According to the Multimedia Development Corporation (MDC), which is implementing the MSC, this includes the following, more detailed, visions:[35]

- ❑ Create a productive, intelligent environment for product developments for national and international markets;
- ❑ Attract world class technology-led companies to Malaysia and develop local multimedia industries;
- ❑ Create a testbed for invention, research , policy development spearheaded by seven multimedia applications; and
- ❑ Build a community that takes advantage of integrated multimedia technologies for smart homes, schools and cities.

Envisaged Development Process

Estimated total time frame for completion is 20 years.

The blueprint for the MSC stipulates three phases for building the MSC:

Phase 1: Laying the Foundations (ongoing)

- ❑ Establish sound and comprehensive regulatory framework; (Multimedia laws with intellectual property rights protection and integrated governance of multimedia sectors);
- ❑ Attract a core group of international companies;
- ❑ Launch seven flagship applications; and
- ❑ Establish two MSC cities: Cyberjaya and Putrajaya as intelligent units.

Phase 2: Reaching Out

- ❑ Link MSC up to other cybercities in Malaysia;
- ❑ Link MSC to other international cybercities;
- ❑ Establish a second cluster of international companies;
- ❑ Champion cyberlaws within the global society; and
- ❑ Work towards global standards in flagship applications.

Phase 3: Complete National Diffusion and Global Positioning

- ❑ Transform the entire nation into a knowledge-based society; and
- ❑ Become a testbed for global multimedia innovations.

Elements

A: Physical Infrastructure Level

The core physical infrastructure will be a high speed, fully digitalised network.

Features

- ❑ Fibre-optic backbone (2.5-10 GBps);
- ❑ High speed link to international nodes;
- ❑ Open standards and multiple protocol;
- ❑ High-speed switching;
- ❑ Regional satellite communication services (provided through Malaysia's MEASAT);
- ❑ Wireless communication; and
- ❑ Competitive telco tariffs including flat-rate for basic network services.

B: Legal Framework and other Regulatory Incentives

The legal framework for the MSC will be characterised by two elements, namely:

- ● Cyberlaws; and
- ● Bill of Guarantees

Digital Signatures Act 1997 (enforced October 1, 1998)

Available on-line: www.malaysia.net/dap/act.htm

Objective: facilitate e-commerce, ensure data integrity in government intranet through use of digital signature system framework for licensing and regulation of certification authorities.

Controller of Certification Authority was appointed October 1, 1998 Act provides mandatory licensing scheme for certification authorities. Documents signed with digital signature in accordance with this act are fully legally binding and considered a "written" and "original" document.

DIGICert became the first licensed digital signature authority.[36]
Expected number of sales in fist year estimated at 15,000

Copyright (Amendment) Act 1997 (enforced April 1, 1999)

Available On-line: www.malaysia.net/dap/act.htm
Objective: full copyright protection for multimedia work.

- ❑ Unauthorised transmission of copyright works over the Internet prohibited.

- ❑ Commitment to intellectual property protection also signalled through newspaper warnings and raids on pirated software, multimedia businesses (by Domestic Trade and Consumer Affairs Ministry).

Computer Crimes Act 1997 (still to be enforced)

Available on-line: www.malaysia.net/dap/act.htm
Objective: define criminal activities such as cyber fraud, unauthorised access and interception of information.

There are currently no special provisions for privacy rights, use of private information by public or private agencies are included.

The act "will provide special rights of interception for law enforcement agencies in the context of fulfiling their duties."[37]

Critique: possible infringement of privacy rights

Telemedicine Act 1997 (still to be enforced).

Available on-line: www.malaysia.net/dap/act.htm

Objective: Defines categories of people who are qualified to practice telemedicine, penalties for professional misconduct.

Critique: Little protection for patient's record.

The Communications and Multimedia Act 1998 (enforced April 1, 1999)

Provides the Regulatory framework for the convergence of telecommunications, broadcasting and computing-industries.

Oversight Body: Malaysian Commission for Communication and Multimedia, appointed November 1, 1998.

Self regulation is cornerstone in the project.

MSC Status and Bill of Guarantees

MSC Status

Eligibility requirements for international companies for MSC status include the following:

- ❑ Provider or heavy user of multimedia products and services.
- ❑ Employer of a substantial number of knowledge workers.
- ❑ Convincing outline for knowledge or technology transfer or other contribution to the development of MSC and the Malaysian economy.

Envisaged Activities

- ❑ Form consortium to develop contractual flagship applications.
- ❑ Centring R&D activities in MSC.
- ❑ Locating manufacturing operations in MSC.
- ❑ Use MSC as regional marketing base.
- ❑ Provide value added telecommunication services.

Advantages of MSC Status

- ❑ Financial incentives (and/or no duties on multimedia equipment, right to tender for flagship application contracts, no income tax for up to ten years, 100 % investment tax allowance).
- ❑ Support from MSC client centre (visas, licenses, permits).
- ❑ Direct access for first mover to Malaysia's top leadership through seats on international advisory councils.

Bill of Guarantees

Companies having been awarded the MSC status enjoy the Bill of Guarantees, which includes:

- ❑ Provision of world-class physical infrastructure;
- ❑ Unrestricted employment of local and foreign knowledge workers;
- ❑ Freedom of ownership by exempting companies with MSC status from local ownership requirements;
- ❑ Freedom to source capital and borrow globally;
- ❑ Provision of competitive financial incentives;
- ❑ Adequate intellectual property protection;
- ❑ No Internet censorship; and
- ❑ Competitive telecom tariffs.

C: Environment

The MSC environment is aimed to realise an "International eco-friendly environment and lifestyles".[38] The objective is to create an attractive garden corridor with commercial, residential, civic, and recreational precincts.

D: Flagship Applications

The MSC currently comprises seven (7) applications in two categories, with implementations commenced since July 1997.

Category 1: Multimedia Development

1. eGovernment

2. Multi-purpose Smart Card;
3. Smart Schools;
4. Telemedicine;

Category 2: Multimedia Environment

5. Research and Development Cluster;
6. Worldwide Manufacturing Webs; and
7. Borderless Marketing.

National Multipurpose Card

Project delayed. Card would incorporate:

- ❑ National identification card;
- ❑ Drivers license;
- ❑ Immigration document;
- ❑ Health card;
- ❑ Electronic cash card;
- ❑ Debit card;
- ❑ Automated teller card; and
- ❑ Credit card.

Smart Schools

Smart schools have the objective to do the following:

- ❑ Harness IT for teaching, learning, staff training and management; and
- ❑ Develop curriculum to achieve IT literacy.

The plan to build 99 new smart schools by January 99 faltered. Only a small number of existing schools have been selected for the smart school project.

It has been observed that only a very few selected schools are currently profiting, as a significant number of schools in Malaysia are still without electricity. This is an example of how one sector of a society can benefit while a country attempts to bring others across the digital divide up to par.

Research and Development Clusters

Clusters have an objective to provide incentives for global player involvement to facilitate knowledge and skill transfer. The contributing agencies include:

- ❑ Multimedia University and other local universities; and
- ❑ Malaysian Institute of Microelectronics (MIMOS) [the organisation central to Malaysia's IT development: first ISP, IT R&D, network provider, IT policy developer].

Worldwide Manufacturing Webs

Worldwide Manufacturing Webs have the objective to promote MSC to multinational companies as a hub for supporting and controlling manufacturing activities in the region. In addition, they are envisaged to facilitate networking with a wide range of support services: R&D, design, engineering support, procurement and logistics, and distribution support.

Borderless Marketing Centres

Borderless Marketing Centres incorporate four areas:

- ❑ Telemarketing;
- ❑ On-line Information services;
- ❑ Electronic Commerce; and
- ❑ Digital Broadcasting.

E. Major Urban Infrastructure Development Projects

The major urban infrastructure development projects under the MSC are the following:

- ❑ Cyberjaya;
- ❑ Putrajaya; and
- ❑ Multimedia University.

Cyberjaya

The *Cyberjaya* is a major urban infrastructure project located on 7000 hectares for 240,000 people (originally scheduled to be completed in 1999 but still ongoing), multimedia industries, R&D centres, Multimedia University, operational headquarters for multinationals, and a world class home, shopping, commercial and public precincts. The Cyberjaya was officially opened on July 8, 1999.

Putrajaya

The *Putrajaya* is another major urban infrastructure development project comprising the following:

- ❑ Smart city and garden city (335,000 residents, employment for 250,000);
- ❑ New seat of government and administration;
- ❑ Administrative capital of Malaysia; and
- ❑ Exploring and operating with concepts of eGovernment.

Petrajaya houses Office of Prime Minister (moved into new office in June, 1999).

Other concepts under Putrajaya include the following:

- ❑ smart home;
- ❑ public services: info available on public kiosk.

Work started in September 1996.

Plans for all but first phase shelved due to economic crises (*Economist* 1997).

Putrajaya was first open to public in July 1999. It is now the Federal Government Administrative Centre.

Multimedia University

The Multimedia University is the third major urban infrastructure development project of the MSC and comprises the following:

- ❑ Multimedia specific programs;
- ❑ Cater to skill requirements of MSC companies;
- ❑ First intake of 3000 students in May 1999.

Organisational Structure

National Information Technology Council (NITC)

History

The National Information Technology Council (NITC) was established in 1994, and is chaired by the Malaysian Prime Minister. The NITC is a national level Strategic planning body of *ICT governance and policy interventions.*

Membership

First term council (1994-1997) comprised public and private sector members. Second term council (1998-2001) comprises a tri-sectoral membership of public, private and community interest sector members.

Functions

- ❑ Formulate strategies for IT development;
- ❑ Support, promote and co-ordinate IT activities; and
- ❑ Monitor and evaluate implementation of IT programmes.

Website

www.nitc.org.my

Multimedia Development Corporation (MDC)

Multimedia Development Corporation (MDC) was established with the objective to promote the MDC, to serve clients in the MDC and to provide a "one-stop" shop to manage and market the MSC. The MDC, established with an initial capital RM 30 million, has to date set up a venture capital of US$31.6 million.

By April 1999, MSC had a total of 225 MSC status companies, 27% of

which were foreign owned, 27% joint ventures, and 46% local companies.[39] In functional terms, MSC status company distributions were as follows:
software companies (37%), content (19%), systems integration (15%), telecommunications (10 %), post-production/animation and film (8%), training and education (3%), and heavy users of multi-media (3%).

As at July 1999, 21 companies had so far moved into the corridor out of 225 companies with MSC status.

Microsoft envisage transforming to turn MSC into its regional headquarters.

Some General Comments

Centralised vs. Broad Based Development Activities

With the MSC, Malaysia has chosen a centralised "growth centre" approach for ICT development. By focusing on one initial ICT innovation centre, Malaysia hopes to be able to engineer an all-integrated environment conducive to Multimedia development. Policy-makers and planners often refer to Silicon Valley as the premier role model for the MSC. Although Malaysian decision makers acknowledge the potential of the Internet to render geographical barriers less important for communication and co-ordination of technological development, they point at the success of the spatially highly integrated Silicon Valley. The MSC is an ambitious attempt to emulate this micro-climate and create synergies between research, business, finance and policy-making, that are rooted in a myriad of formal and informal institutional arrangements and face to face interaction nourished by spatial closeness.

On the one hand, this centralised approach does seem to be supported by socioeconomic analyses of the Silicon Valley success stories. On the other hand, studies on the macro level of country development emphasise the importance of balanced and broad based development, in order to embark on a sustainable long-term development trajectory. Many local and international observers have criticised this centralised approach and even MSC representatives acknowledge the trade-off between a highly focused, synergy-driven kick start and a more inclusive and distributed strategy for ICT development.

Addressing some of the critique, the MSC is complemented by a number of national IT related initiatives that are supposed to prepare the ground

for Phase Three of the MSC development phase at the diffusion of MSC dynamics to the rest of the country. These IT-related initiatives include:

- IT Awareness Campaign; and
- Electronic Government (eGovernment).

IT Awareness Campaign

Tax deductions for first time computer buyers (the new budget, which was presented in the last week of October 1999 introduces a number of additional project funds and tax incentives to stimulate both the demand and supply side of the IT applications and services market) is the hallmark of IT Awareness Campaign.

The MSC however, remains the major focus of the National IT Initiative.

Electronic Government (eGovernment)

Electronic Government (eGovernment) is one of the Multimedia flagship programmes. Following are some of the proposed characteristics and applications of the flagship programme.

Objectives

Summary of speech by the Malaysian Minister of Energy, Communications and Multimedia Datuk Leo Moggie on their proposed objectives of eGovernment:[40]

- Introducing greater customer orientation in the delivery of services (greater availability of information through information kiosk, phone services etc.);
- Effecting change in the structure of public organisations towards greater efficiency, better responsiveness to clients and more effective decision-making (improved intra-organisational information flows, better analytical tools);
- Enhancing accountability and discipline; and
- Acculturation of values of excellence in the civil service;
- Encouraging private sector to make greater use of IT for business transactions by establishing eProcurement.

Public Sector Reform Initiatives Undertaken To Date

- ❑ Establishment of Client's Charter;
- ❑ Review of the system of licensing and permits;
- ❑ Office automation programmes and re-engineering;
- ❑ Computerised text processing, information storage and retrieval; and
- ❑ Adoption of ISO 9000 standards in public agencies.

Elements of eGovernment Flagship Programme

Initial five pilot applications within the eGovernment flagship programme have the following attributes and include the following:

Guiding principle for implementation of pilot applications: smart private-public partnerships (smart PPP).

- ❑ **Electronic Delivery of Driver and Vehicle Registration, Licensing and Summons Services, Utility Payments and Ministry of Health On-Line Information.**

  Proposed access is through kiosks in shopping malls and home PC's, project delayed.

- ❑ **Electronic Procurement (eProcurement)**

  Electronic Procurement (eProcurement) has the prime objective to improve government to business ("G2B") and business to government ("B2G") transactions.

- ❑ **Generic Office Environment**

  Generic office environment is a pilot project to facilitate access to Prime Minister' s office for civil servants. It comprises an automated office system, and a customised desktop environment designed by Microsoft. It incorporates intelligent agent for employees, integrated within MS Office.

  Executing company for the Generic Office Environment is the Sapura Advanced Systems (RM35million awarded May 1999).

F: Relevant Legislation

F1 Legislative Principles

Ten (10) *National Policy Objectives* for the Communications and Multimedia Sector, as enshrined in Section 3(2) of the Multimedia Act, form the basis of the legislative principles:

- ❑ To establish Malaysia as a major global centre and hub for communications and multimedia information and content services;
- ❑ To promote a civil society where information based services will provide the basis of continuing enhancements to quality of work and life;
- ❑ To grow and nurture local information resources and cultural representation that facilitate the national identity and global diversity;
- ❑ To regulate for the long-term benefit of the end user;
- ❑ To promote a high level of consumer confidence in service delivery from the industry;
- ❑ To ensure an equitable provision of affordable services over ubiquitous national infrastructure;
- ❑ To create a robust applications environment for end users;
- ❑ To facilitate the efficient allocation of resources such as skilled labour, capital, knowledge and national assets;
- ❑ To promote the development of capabilities and skills within Malaysia's convergence industries; and
- ❑ To ensure information security and network reliability and integrity.

F2 Malaysian Communications & Multimedia Act 1998

Source: http://ktkm.gov.my/rang/eng/multimedia.htm
Explanatory statement: http://ktkm.gov.my/rang/eng/TRANSIT3.HTM

Overview

Emphasis on self-regulation: The Commission has powers to "designate" or to appoint industry forums which will be responsible for the formulation of voluntary industry codes regarding a matter dealt with by that code, particularly an offence provision. For example, compliance with a

registered content code will provide a legal defence against any prosecution regarding the provision of offensive or indecent content.

Some Important Excerpts: Content regulation through licensing: But exceptions for "limited content application services"

Section 129: The objective of these provisions is to ensure that content applications services which do not require extensive social regulation under this part, because they are provided only to limited sectors of the population, are not subject to unnecessary regulation. A high level of regulation of these services is likely to impede the development of local content providers and therefore be inconsistent with the objects of the Act.

F3 Consumer Protection - Quality Of Service

Section 189: The Commission may designate an industry body to be a consumer forum for the purposes of this chapter.

Section 190: (1) A consumer code prepared by a consumer forum or the Commission shall include model procedures for -

(a) reasonably meeting consumer requirements;

(b) the handling of customer complaints and disputes including an inexpensive arbitration process other than a court, and procedures for the compensation of customers in case of a breach of a consumer code; and/or

(c) the protection of consumer information.

(2) The matters which the consumer code may address may include, but are not limited to -

(a) the provision of information to customers regarding services, rates and performance;

F4 Licensing

Section 205: (1) Subject to such exemptions as may be determined by the Minister by order published in the Gazette, no person may provide a content applications service unless -

(a) the person holds a valid individual license granted under this part to provide the content applications service; or

(b) the content applications service is subject to a valid class license under this part.

(2) A license obtained under this section does not exempt any person from the obligation to obtain a license under any other relevant section of this Act.

(3) A person who contravenes subsection (1) commits an offence and shall, on conviction, be liable to a fine not exceeding five hundred thousand ringgit or to imprisonment for a term not exceeding five years or to both and shall also be liable to a further fine of one thousand ringgit for every day or part of a day during which the offence is continued after conviction.

Section 206: (1) The relevant standard conditions of every license, granted under this part, shall be in accordance with the schedule.

(2) Any special or additional conditions of a license may be declared by the Minister and included in the license.

(3) A content applications service provider shall not provide any service except in accordance with the conditions of the license granted to that licensee under this chapter or the conditions of a class license to which such content applications service provider is subject.

Section 207: (1) The Minister may determine the definition of a "closed content applications service" for the purposes of this Act.

(2) In the absence of such determination, a closed content applications service shall be -

(a) a content applications service confined to a single dwelling; or

(b) a content applications service provided only to the employees or officers of a single body corporate.

(3) The provision of any closed content applications service shall be exempt from the provisions of this part.

Section 208: (1) An applications service provider is exempted from the provisions under section 205 to the extent that the content in question is content incidental to the service provided.

(2) For the purposes of this section, the Minister may determine guidelines to clarify the meaning of "content incidental to the service provided" and all matters related to it.

(3) The guidelines determined by the Minister shall be published by the Commission, in the manner it deems appropriate, and shall be registered in the register as soon as practicable.

Section 209: (1) A person providing a limited content applications service is not required to hold an individual license but he may be subject to a class license.

(2) A limited content applications service provider to which no class license applies shall be deemed to be exempted from all the provisions under this part.

(3) For the purposes of this section, the Minister may determine guidelines which clarify or add to the criteria used in defining the term "limited content applications service" and all matters related to it.

(4) The guidelines determined by the Minister shall be published by the Commission, in the manner it deems appropriate, and shall be registered in the register as soon as practicable.

Section 210: (1) A person may apply to the Commission to decide whether a content applications service is considered a limited content applications service or whether the content is content incidental to the service provided.

F5 Content Regulation

Section 211: (1) No content applications service provider, or other person using a content applications service, shall provide content which is indecent, obscene, false, menacing, or offensive in character with intent to annoy, abuse, threaten or harass any person.

(2) A person who contravenes subsection (1) commits an offence and shall, on conviction, be liable to a fine not exceeding fifty thousand ringgit or to imprisonment for a term not exceeding one year or to both and shall also be liable to a further fine of one thousand ringgit for every day or part of a day during which the offence is continued after conviction.

Section 211: The Commission may designate an industry body to be a content forum for the purposes of this Part.

Section 212: (1) A content code prepared by the content forum or the Commission shall include model procedures for dealing with offensive or indecent content.

(2) The matters which the code may address may include, but are not limited to -

(a) the restrictions on the provision of unsuitable content;

(b) the methods of classifying content;

(c) the procedures for handling public complaints and for reporting information about complaints to the Commission;

(d) the representation of Malaysian culture and national identity;

(e) public information and education regarding content regulation and technologies for the end user control of content; and

(f) other matters of concern to the community.

Section 233: (1) A person who -

(a) by means of any network facilities or network service or applications service knowingly -

(i) makes, creates or solicits; and

(ii) initiates the transmission of any comment, request, suggestion or other communication which is obscene, indecent, false, menacing or offensive in character with intent to annoy, abuse, threaten or harass another person; or
(b) initiates a communication using any applications service, whether continuously, repeatedly or otherwise, during which communication may or may not ensue, with or without disclosing his identity and with intent to annoy, abuse, threaten or harass any person at any number or electronic address, commits an offence.

2) A person who knowingly -
(a) by means of a network service or applications service provides any obscene communication for commercial purposes to any person; or

(b) permits a network service or applications service under the person's control to be used for an activity described in paragraph (a), commits an offence.

(3) A person who commits an offence under this section shall, on conviction, be liable to a fine not exceeding fifty thousand ringgit or to imprisonment for a term not exceeding one year or to both and shall also be liable to a further fine of one thousand ringgit for every day during which the offence is continued after conviction.

F6 Law Enforcement, Induced Interception & Assistance of ISP

Data Protection – Intercepting Communication

Section 234: (1) A person who, without lawful authority under this Act or any other written law -

(a) intercepts, attempts to intercept, or procures any other person to intercept or attempt to intercept, any communications;

(b) discloses, or attempts to disclose, to any other person the contents of any communications, knowing or having reason to believe that the information was obtained through the interception of any communications in contravention of this section; or

(c) uses, or attempts to use, the contents of any communications, knowing or having reason to believe that the information was obtained through the interception of any communications in contravention of this section,
commits an offence.

(2) A person authorised under this Act who intentionally discloses, or attempts to disclose, to any other person the contents of any communications, intercepted by means authorised by this Act -

(a) knowing or having reason to believe that the information was obtained through the interception of such communications in connection with a criminal investigation;

(b) having obtained or received the information in connection with a criminal investigation; or

(c) to improperly obstruct, impede, or interfere with a duly authorised criminal investigation, commits an offence.

(3) A person who commits an offence under subsection (1) or (2) shall, on conviction, be liable to a fine not exceeding fifty thousand ringgit or to imprisonment for a term not exceeding one year or to both.

Powers of Entry, Investigation Into Offences And Prosecution

Section 245: (1) The Minister may in writing authorise any public officer or officer of the Commission to exercise the powers of enforcement under this Act.

(2) Any such officer shall be deemed to be a public servant within the meaning of the Penal Code.

(3) In exercising any of the powers of enforcement under this Act, an authorised officer shall on demand produce to the person against whom he is acting the authority issued to him by the Minister.

(4) For the purposes of subsection (1), the Commission may issue directions to a licensee or other person to secure compliance with this Act or its subsidiary legislation.

Section 246: (1) The Commission may investigate the activities of a licensee or other person material to his compliance with this Act or its subsidiary legislation.

(2) In any case relating to the commission of an offence under this Act or its subsidiary legislation, any authorised officer carrying out an investigation may exercise all or any of the special powers in relation to police investigation in seizable cases given by the Criminal Procedure Code.

Section 247: (1) If it appears to a Magistrate, upon written information on oath and after such inquiry as he considers necessary, that there is reasonable cause to believe that an offence under this Act or its subsidiary legislation is being or has been committed on any premises, or that any evidence or thing which is necessary to the conduct of an investigation into an offence may be found in any premises, the Magistrate may issue a warrant authorising any police officer not below the rank of Inspector, or any authorised officer named in it, to enter the premises at any reasonable time by day or by night, with or without assistance and if need be by force, and there to search for and seize any such evidence or thing.

(2) Without affecting the generality of subsection (1), the warrant issued by the Magistrate may authorise the search and seizure of -

(a) copies of any books, accounts or other documents, including computerised data, which contain or are reasonably suspected to contain information as to any offence so suspected to have been committed;

(b) any signboard, card, letter, pamphlet, leaflet or notice representing or implying that the person has a license granted or assignment issued under this Act; or

(c) any other document, facility, apparatus, equipment, device or matter that is reasonably believed to furnish evidence of the commission of the offence.

(3) A police officer or an authorised officer conducting a search under subsection (1) may, for the purpose of investigating into the offence, search any person who is in or on the premises.

Assistance by Service Providers

Section 254: An authorised officer shall, for the purposes of the execution of this Act or its subsidiary legislation, have power to do all or any of the following:

(a) to require the production of records, accounts, computerised data and documents kept by a licensee or other person and to inspect, examine and to download from them, make copies of them or take extracts from them;

(b) to require the production of any identification document from any person in relation to any case or offence under this Act or its subsidiary legislation; and

(c) to make such inquiry as may be necessary to ascertain whether the provisions of this Act or its subsidiary legislation have been complied with.

Section 263: (1) A licensee shall use his best endeavour to prevent the network facilities that he owns or provides or the network service , applications service or content applications service that he provides from being used in, or in relation to, the commission of any offence under any law of Malaysia.

(2) A licensee shall, upon written request by the Commission or any other authority, assist the Commission or other authority as far as reasonably necessary in preventing the commission or attempted commission of an offence under any written law of Malaysia or otherwise in enforcing the laws of Malaysia, including, but not limited to, the protection of the public revenue and preservation of national security.

Section 264: Any network facilities provider, network service provider, applications service provider or content applications service provider or any of his employees, shall not be liable in any criminal proceedings of any nature for any damage (including punitive damages), loss, cost, or expenditure suffered or to be suffered (whether directly or indirectly) for any act or omission done in good faith in the performance of the duty imposed under section 263.

Section 265: (1) The Minister may determine that a licensee or class of licensees shall implement the capability to allow authorised interception of communications.

(2) A determination, under subsection (1), may specify the technical requirements for authorised interception capability.

Section 266: (1) On the occurrence of any public emergency or in the interest of public safety, the Yang di-Pertuan Agong or the Minister authorised by him in that behalf may -

(a) suspend the license of any licensee, take temporary control of any network facilities, network service, applications service and/or content applications service owned or provided by a licensee in any manner as he deems fit;

(b) withdraw either totally or partially the use of any network facilities, network service, applications service and/or content applications service from any licensee, person or the general public;

(c) order that any communication or class of communications to or from any licensee, person or the general public relating to any specified subject shall not be communicated or shall be intercepted or detained, or that any such communication or its records shall be disclosed to an authorised officer mentioned in the order.

F7 Access to Encrypted Material

Section 249: (1) A police officer conducting a search under section 247 or 248 or an authorised officer conducting a search under section 247 shall be given access to computerised data whether stored in a computer or otherwise.

(2) For the purposes of this section, "access" includes -

(a) being provided with the necessary password, encryption code, decryption code, software or hardware and any other means required to enable comprehension of computerised data; and

(b) the meaning assigned to it by subsections 2(2) and (5) of the Computer Crimes Act 1997.

SOURCES

Crouch, H. (1996): *Government and Society in Malaysia,* Ithaca: Cornell University Press.

Global Telecom Business (1999): Malaysia's Role in Multimedia Revolution, June 1999.

Lim, K. (1999): DAP calls for freedom of information act, speech at Joint Dinner of Muar District DAP Branches, May 7, 1999 [on-line] HYPERLINK http://www.malaysia.net/dap/sg1746.htm www.malaysia.net/dap/sg1746.htm, accessed November 1, 1999.

Mahathir M. (1998): *Mahathir Mohamad on the Multimedia Corridor,* Suban Jaya: Pelanduk Publications.

Malaysia (1996): *Seventh Malaysia Plan 1996-2000,* Kuala Lumpur: Economic Planning Unit.

Maarof, A. (1999): *Interoperability and Standards in the Multimedia Super Corridor,* Paper prepared for Expert Group meeting of Trade Promotion Policy Experts, ESCAP [on-line] HYPERLINK http://www.unescap.org/itecd/tf/stdmsc.htm www.unescap.org/itecd/tf/stdmsc.htm, accessed November 2, 1999.

Moggie, L. (1998): *Official Opening and Keynote Address to the COM-*

NET-IT Symposium on "Best Practice in Electronic Government", Kuala Lumpur, December 8, 1998 [on-line] HYPERLINK http://www.com-net.mt/malwk98r/offopkyn.htm
www.comnet.mt/malwk98r/offopkyn.htm, accessed November 1, 1999.

Nain, Z. and Anuar, M. (1998): *IT Strategies in Malaysia. The Multimedia Super Corridor,* Conference Paper: UNRISD Conference on Information Technologies and Social Development, June 22-23, 1998, Geneva

New Straits Times (1999): *First Licensed Authority for On-line Transactions,* Kuala Lumpur, July 30, 1999.

Ramli, R. (1999): Malaysian Country Report. *Information Technology in Malaysia Today.* Presentation at Asia-Pacific Internet Conference, Bali, Indonesia, March 23-27, 1999 [on-line] Hyperlink "http://goanna.cs.rmit.edu.au/~aym/rinseap/balimeet/Malaysia.html"

Summary of most important on-line information sources

HYPERLINK "http://www.mdc.com.my/msc.index" Multimedia Development Corporation (MDC): Homepage of the body overseeing the MSC development, overview of MSC project.

HYPERLINK"http://www.malaysia.net/dap/act.htm" Collection of Malaysian Laws on-line (including all the cyberlaws) peculiarly provided by the opposition party DAP.

HYPERLINK "http://www.businessweek.com/1999/99_12/b3621031.htm" Three detailed articles by Businessweek on the problems of the Super Corridor (March 1999, also mentioned in text).

HYPERLINK "http://www.unrisd.org/infotech/conferen/msc1.htm" Critical article about MSC (paper presented at UNRISD Conference on Information Technologies and Social Development, 1998.

Relevant entities

The Communications and Multimedia Commission
HYPERLINK "http://www.cmc.gov.my www.cmc.gov.my"

The Ministry of Energy, Communications and Multimedia

HYPERLINK “http://ktkm.gov.my http://ktkm.gov.my (official site for the Multimedia Act).

CHAPTER SIX

PRIVACY AS A HUMAN RIGHT: THE WAVE OF THE FUTURE

"The argument that only the guilty "have something to hide" builds on the flawed notion that privacy is about keeping unpalatable secrets. Yet scratch even the most ardent advocate of unfettered technology and you will find a topic that triggers some reserve; personal finances, sexual preferences, medical conditions – we all have "something to hide" and a right to hide it. Truly these matters are no-one else's (or very few people's) business. Those who have had the misfortune to live in states that treat the individual's information as their own understand how this builds social control and weakens the individual."

Bruce Phillips,
Privacy Commissioner of Canada
Annual Report, June 1999.

Introduction

Privacy is emerging as an important international issue. For those countries implementing new technologies for electronic governance eGovernance in general the electronic delivery of services (eGovernment), having data protection or privacy laws in place is important. It is also clear that the emergence of ever pervasive and intrusive technologies is representing a threat, not only to our privacy, but, our fundamental freedoms as citizens. We are building mechanisms, and accepting them by allowing their implementation and use, in which we are, virtually, potentially building an electronic prison for ourselves. The potential mechanisms for the diminishment of our basic freedoms are now being put in place. These threats make way for the argument that we must enshrine privacy as a basic human right. We need an international convention to achieve this.

Privacy plays an important part in the development of electronic services and the implementation of new technologies. Many countries already have data protection (privacy) laws in place. The European Union has a Directive on the Protection of Personal information that applies to all member states. Other countries, such as Hong Kong for example, have

put in place data protection laws has a law in place which conform with the EU Directive. Malaysia is proposing a law to develop data protection standards. Canada's Parliament has recently passed a Protection of Personal Information and Electronic Documents Act which will come into force in January 2001. Part of Canada's strategy in developing an eCommerce policy is to ensure that laws exist to develop trust and confidence in individuals who come on-line to engage in electronic transactions. *All these laws seek to protect the personal information of the individual from abuse and misuse.* Such protections have become increasingly important with the developments in the on-line world and the massive amounts of personal information being circulated every minute of every day. This chapter looks at the threats posed by these technological advances and why there is a need for some type of individual treaty or convention to protect privacy on the Internet.

In an opening essay to his 1999 Annual Report Canada's Privacy Commissioner, Bruce Phillips eloquently makes the case as to why privacy is not dead, as many have argued. He makes specific references to the Economist's May 1, 1999 article on the *death of privacy* and Professor Reg Whittaker's (York University, Toronto) book 'The End of Privacy: How Total Surveillance is Becoming a Reality'.

The Privacy Commissioner not only makes the case for a robust debate on the need for privacy but also illustrates how acceptances of new technologies are presenting ever-growing threats to our essential freedoms. As he writes, *"the real problem is not the technology, or even some of its seductive promises of convenience, security and efficiency. It is our failure to comprehend the heavy costs that come with the benefits of technology's unchecked insinuation into every facet of modern life. We are effectively building ourselves an electronic Gulag."*

He sees the increased loss of privacy through the intrusiveness of surveillance technologies as concomitant to the threat of the loss of hard won freedoms. He argues that *"perhaps not enough people yet realise that privacy and freedom are inextricably linked; one cannot exist without the other.... But this failure to understand the link is pervasive and leads to many dubious notions taking root."*

Privacy advocates, he contends, use and do enjoy the fruits and benefits of technology but, at the same time, the flaws of technology do not blind the same advocates. They are not Luddites, as many may contend. "Human values," writes the Commissioner, " not technology, must drive the bus. We can build privacy and data security into information tech-

nologies if we are determined to do so."

He asks, is privacy dead? In answer to the question he poses, he concludes:

"Assuredly it is struggling, but struggle is the eternal and unchanging fate of all freedoms. Freedoms, once lost, can only be regained at the cost of great effort and pain. None can say with certainty that privacy will not be lost here. But if freedom survives at all, so too will privacy, because by definition freedom cannot exist without the right to a life free of surveillance and regimentation."

Privacy and Human Rights

The message of the Commissioner's Annual Report is a timely one. It succinctly raises the very real threats that technology poses to both our democratic freedoms and our essential human rights in a free society. The topic of this section is the focus we must begin to put on privacy as a human right as we develop into societies increasingly dependent on the electronic world.

Privacy has now become a major issue internationally. The rise of intrusive technologies and the Internet has resulted in a surge in awareness about the importance of privacy. On the Internet a lot of pressure is being put on companies to develop privacy policies to protect consumers who are liberally sharing their personal information in this new environment. The rush by large corporations to engage in electronic commerce (eCommerce) has meant more personal information is being gathered, shared, sold, and disseminated, than ever before.

What follows is an overview of why citizens appear to be worried about the ways in which their personal selves are being silently abused. Many individuals perceive that their personal information is used in cyberspace in very cavalier ways.

This account reflects only part of the story: how our personal information is bandied around the technological and communication networks of the world. It may seem to some like a fantastic science fiction story rather than a reflection of the reality of the modern world. At any given time, highly computer-literate people, in both government and segments of the private sector, can, within seconds, by using these sophisticated technolo-

gies, know everything about an individual. It is no longer a question that the potential to gather such information is out there but rather how much does it go on?

Yet this capability has been known for sometime. It has been articulated in articles, novels and books. Unfortunately, it has been interpreted to mean that technology is inherently evil and an instrument of control of individuals. In fact, technology is not the problem; it is what people do with the personal information that is at the core of this issue. There is also a paradox built into all this: despite the awareness of the slipshod use of personal information and how much of it is available, people continue not only to use new technologies to give out the most personal details of their lives but seem to enjoy doing it. This does not necessarily hold true with the Internet population where concerns for privacy violations run high. The concerns there are conceivably higher because many people on the Net are, overall, highly literate, earn higher than average incomes, tend to be more highly educated, and are very literate about the technology. They understand what this technology can do and what people can do with it, if protections are not put in place.

In society overall, the perception seems a bit different. The highly driven consumer of the late twentieth century is both the consumer and the consumed of information. On the one hand we seem to want to protect it, on the other we are liberally sharing it. The answer to this is not necessarily stopping the sharing of information but education as to how one's personal information is being used. This has led many technology experts and commentators to conclude that the price of technological convenience is an increasing loss of privacy. Also, others argue that technology is now so pervasive in the industrialized nations of the world that our privacy is now lost forever. Privacy advocates vociferously disagree with this latter view arguing that legislative standards will handle the problem. Many ordinary citizens, not versed in the substantive issues surrounding privacy, know that there is a problem. Surveys indicate that more and more people want to see some mechanisms to protect their privacy in cyberspace.

The transition from the Paper Age to the Digital Age has brought with it new issues for the collection, management and dissemination of information. In the past, especially prior to the rise of the personal computer, seamless international information networks and the Internet, information was often difficult to retrieve.

To get at any kind of information necessitated a laborious process. To

date information from around the globe can be at one's fingertips with the touch of a stroke on a keyboard. Any curious citizen can browse the Internet, use search engines to find out whatever kind of information he/she is seeking from either web sites or a multitude of other Internet related sources.

Searches of databases can allow you to obtain any piece of personal information you want, whether it is on yourself or another. Unless such personal information is specifically protected by statute or government policy, it can be easily obtained. Even those who are technologically literate cannot escape this net. An individual might not go on-line but the information is still ending up in a database somewhere. Personal information is given out almost daily in our personal lives and the collectors of such information, whether a government agency or a private sector organisation, are storing it somewhere in some electronic format.

Thus, all citizens today are intricately intertwined with the global information technology and communication infrastructure even if they do not use or own a computer or ever go on-line.

Whatever transaction we engage in, whether it is using a bank card to withdraw cash or fill out a form (and mail it) to join a book club, the information ends up in a computer. Once entered it can stay in the computer, be shared within a department or organisation or sent anywhere in the world. There are no limitations on the sharing of personal information. Once put into a computer or a network it can be accessed by any number of people. Many countries in the industrialised world have strong public sector privacy laws to protect personal information. Many of the statutes are in need of reform in order to bring them in line with the recent developments in information and communication technologies.

Today we are awash with information. No matter what you want, in all probability you can find it somewhere. Information is ubiquitous; it is in the millions of nooks and crannies on the Internet and on Bulletin Boards and databases around the globe. It can be found in text format on CD-ROM's, as visual data on TV, videos, on-line multi-media images, or in audio. It is as close as the search we want to do. This is the accessible information, that which we do seek out using the multitude of media sources.

In the private sector, this has resulted in a new gold mine for marketers, direct mailing houses, researchers, private investigators and the just plain curious. Data warehouses are now common. It is a practice, called data

mining, engaged in by large and small companies alike around the globe. Any individual with a sophisticated knowledge of the new information technologies, the right equipment and the expertise to use it, can find out everything about you from the day you were born to the present. While few could even be bothered to get such information, there are many companies who want to know many of your personal and spending habits so that specific advertising of products can be marketed directly to you. This occurs every second of every day on a continuing basis around the world. In cyberspace there are no limitations of time or space.

Activity on the Global Information Infrastructure never ceases. For example, an individual can register for a web site in Canada. Another branch of the company might be in Australia. Within seconds that personal information can then be in the data banks of the Australian office. Something in your profile might make you a candidate for a product sold in the company. In turn, the company can then sell your information to any other company in the world because you fit a certain profile. A person interested in skiing could have his/her personal information sold to travel agents, ski manufacturers, airlines, ski resorts or any industry related to skiing. There is no end to the infinite ways in which the information could be used. Personal information is spread out along the corridors of the world's integrated networks. If not protected by a statute barring access or use of it, it is there for the taking.

Another sophisticated method used by many web site owners to gather information about you is through the use of "cookies." Following is a definition and description of "cookies." It is provided by Netscape.

"Cookies are a general mechanism which server side connections can use to both store and retrieve information on the client side of the connection. The addition of a simple, persistent, client-side state significantly extends the capabilities of Web-based client/server applications.

"In human terms this means that Web servers now have (and have had for a long time) the ability to customise a Web site on a person by person basis. Imagine how hard it would be to keep preferences for every browser that has ever visited Yahoo, such a thing couldn't be done if the preferences had to be kept on the Web server it would amount to billions of bytes of data. A much better way to do this is for each browser to keep their own preferences. That's what cookies do.

"Web Browsers set aside a small amount of space on your hard drive to keep these preferences. Then every time you visit a Web site your brows-

er checks to see if you have any pre-defined preferences (cookie) for that server; if you do it sends the cookie to the server along with the request for a web page.

"A browser will not give up its cookie data to any server except the one that set it. If your browser went around spewing all it's cookies to every site you hit this would be a security risk and would make cookies worthless.

Cookies could be used for a lot of things; whether to display a page with frames or text only, shopping cart selections, your name, a username and password, an account number for those sites that charge for viewing. The possibilities are endless, anytime personal data needs to be saved it can be saved as a cookie (if it isn't too long 4000 bytes is the limit).

"Cookies CANNOT be used to get a persons email address. They can save the email address after a browser types it into a form, but they can't GET anything. A cookie is just a holder."

When you have a cookie in your computer then the next time you go to a web site that put the cookie there it tracks what pages you are looking at. It can then compare this to previous visits. From this it can gather profiles on your interests and this can result in your name ending up on another mailing list. It can get your basic information by asking you to register. It then automatically traps the information on your interests as you peruse the site. This information goes into a database. The information can be made available to other interested marketers. Through computer code other computers can actually talk to each other. In other words, one computer is coded, for example, to respond to anyone interested in skiing. An individual comes in who is a recreational skier and indicates this on a site. That computer can thus be programmed and send this information to another computer in another company or country without a human person being involved. It goes into a database of that company and the process can be continued *ad infinitum.* In this manner all forms of an individual's personal information is snapped up from these databases. This makes the sources of personal information on us in cyberspace almost infinite. It also means our privacy has become almost non-existent. This is why many believe that our privacy is not just vanishing but it has vanished. Privacy legislation, however, effectively applied, can curtail such practices.

The cookie technology in itself can be of use to the Web site owner to determine if the site is offering the right services. If people come in, look

at one page, quickly leave and never come back, this could tell the owner there is something wrong with their design or content on the site. The problem with the cookie technology is when the behaviour of the individual becomes the subject of profiling and the information collected is put up for sale on the Internet. Individuals can erase these cookies from their computers but many are not aware they have the capacity to do this. Erasure of the cookie prevents any future tracking next time you go back to a site. This is one means individuals have to protect their privacy. Erasure of the cookie gives a choice as to whether or not the individual wants to exercise his/her privacy. In Windows 98 cookies can be found by clicking on My Computer. Simply go to the C drive section, click on Windows and in that area you will see the cookie section. Click that on and then delete all the cookies.

It is becoming clear that people are concerned about how their personal information is bandied about and traded like baubles in cyberspace. We are all becoming virtual commodities in an electronic world. People sense that the issue here is greater than privacy. We now are witnessing the development of two separate identities for every individual, our real selves as perceived in the physical world by family, friends, colleagues, etc (to varying degrees), and our virtual selves growing in cyberspace. The latter is based on real data that is, in itself, subjective and not necessarily reflective of our true selves. We have these electronic personalities, or data shadows, which are coming to be interpreted as our real selves.

People are now raising fears and asking questions about the potential for individual harm which new technologies can create for individuals and society at large. Where will these developments take us? We are rapidly becoming technohumans as humanity becomes increasingly integrated with the growing global electronic information technology infrastructure. This makes us subject to decisions being made by invisible controllers of this infrastructure. People are becoming intuitively worried about the forces driving these technological developments. Fears about the loss of our privacy actually reflect a deeper fear of what technology is doing to us as individuals.

There is now abroad in the land the idea that technology is the hope of the future and will lead us to "Elysian Fields" and a better society yet to be dreamed of. Often information issues such as privacy are seen as an impediment to technological development. Many believe individual rights have been parked to the side for these "greater" interests.

Some experts estimate that since 1990 more information has been created

around the world than in all of human history. This growth in our knowledge society is resulting in many benefits for executives, managers, administrators, citizens and societies overall. It is also putting our own personal privacy into a perilous state. The transition from the Paper Age to the Digital Age has brought with it new issues surrounding the usage of personal information. In the past, especially prior to the rise of the personal computer, international information networks, and the Internet, information was often difficult to retrieve, or necessitated a laborious process.

Now information from around the globe can be at one's fingertips with the touch of a stroke on a keyboard. Any curious citizen can browse the Internet, use search engines to find out whatever kind of information he/she is seeking from either web sites or a multitude of other Internet related sources. This creates a whole new dimension to the issue of how personal information is used in today's rapidly changing society. We are in the midst of an information free fall in terms of how our personal information is being used and bandied about.

However, the privacy issue moves far beyond protecting personal information on the Internet. In a larger sense our privacy is being violated daily as new and all encompassing surveillance technologies come on the market.

Surveys show that a large majority of the citizens shopping on-line want to ensure that their personal information is protected, secure and confidential. When surveyed the public asserts strongly of their fear of privacy invasion in our new technological environments. At the same time many of these same people freely use the new technologies that are slowly eroding our freedoms. With each use of these technologies, without debating the long-term deleterious effects on us as a society, we build an ever-tightening electronic noose around society's collective neck. There are many examples of how technology is being used to snoop into our lives from the cameras in the corner shop and in every shopping mall to the ever increasing emergence of personal smart card technologies, being developed by governments, that contain millions of bytes of our personal information.

Technology has meant a wide-scale loss of privacy in comparison to what we enjoyed just twenty years ago. It is not just our personal information that is being abused. We are subject to almost daily scrutiny of our lives. In most countries now video surveillance cameras are accepted as a way of life to combat crime. Computers can now talk to other computers and,

if properly programmed, can exchange information between machines automatically. Computers can monitor every aspect of our on-line activities. In the work place, electronic monitoring of employees is not unusual. In many corporations it is becoming a standard practice in the name of administrative efficiency. In the industrialized countries there are billions of bits of information shared daily. At the same time the prying, ever watchful eye of the camera is increasingly panning more and more of our lives. Web cams can send pictures of an individual in the home or on the street around the world. The problem lies not just with the business world but also with governments who find these technologies more and more persuasive to execute their programs.

Citizens often willingly give up their information so they can receive some benefit that a retailer is offering. Geo positioning satellite (GPS) technology can now send e-mail, faxes and messages to our pagers and, now, even to our cars. But that same technology can also pinpoint exactly where we are at any given time of the day. Whether we are in our car and just a short walk away from where we parked, someone somewhere will be able to know our location. This is just another bit of information that will end up somewhere in a database for possible current or future use by someone.

Employers can monitor every aspect of employees' movements through these technologies. And all of this will be in the name of administrative efficiency, monitoring productivity and being cost effective. In time, governments will find persuasive reasons to also monitor our activities. It appears that society is whistling cheerfully as we descend willingly into the fast approaching dark tunnel of encroaching technological tyranny. The threats to our freedoms are even wider than George Orwell or Aldous Huxley might have ever imagined.

The Ontario Government in Canada has announced plans of the possibility of developing smart cards that will combine a citizen's driver's license, health card, birth certificates and fishing licenses. It will contain a person's personal information on a small chip. The Ontario Government argues that the card will contain the individual's unique fingerprint and thus have the needed privacy and security. But the problem with such technologies is that privacy laws cannot adequately protect the citizen. In time, such unique identifiers can be expanded for usage by more and more government agencies. Soon this could become a card that you must produce on demand. To not do so could tag the citizen "as suspicious" with possibly something to hide because he/she does not want to provide the identity card. *The personal information could still be protected by a pri-*

vacy act but such protection cannot guard against the human consequences. Such a unique identifier eventually will dehumanise the individual. It has the potential to remove freedom of choice when dealing with a government agency. Cards such as this only serve to diminish the dignity of individuals and rob them of the uniqueness of their individuality.

British Telecom (BT) is developing software, which will allow the computer to determine if you are under stress or upset. The computer can then automatically stop or filter out e-mail or other electronic messages (such as voice mail) coming to the individual. This technology will sound enticing to the worker trying to cope in today's frantic environment. But what could start out as a volunteer application of filtering out messages when upset or under stress could turn into another surreptitious surveillance technology. In the industrialized democracies of the world we are heading towards the total surveillance society as citizens eagerly glom onto the latest technological wizardry.

More importantly, we are growing far too reliant on technology itself and are developing into societies where technology controls daily life as opposed to individuals controlling the technology to better their lives.

In Britain a scientist has developed a chip which he has implanted in himself. The chip is connected to a computer that can monitor his every movement. This same scientist acknowledged there are privacy implications of such a technology. But the frightening aspect of this is that such a technology, once on the market, will end up being used. Only an outcry of public indignation can stop the development and implementation of such technologies.

The irony of all this is that it is occurring in democratic societies where only a few seem to be vigilante enough to speak out and to warn the rest of us of the dangers of where we as societies are taking ourselves. It is important that we continue to debate the issues and educate the citizenry on the dangers posed by the new technologies. This is not an argument to arrest the development of technology but rather to harness its potential harmful results. We need an ongoing debate on these issues. Educating the public is a good start.

Conclusions

Under the current, new privacy law in Canada, the Federal Privacy Commissioner is going to have a mandate to educate Canadians about their new privacy rights. This is perhaps one of the most crucial provisions in the whole legislation. It is through forums, such as in the Annual Report, reports of privacy commissioners around the world and educational programs, that people's awareness will be raised of the need to strike a balance between the development and usage of new technologies and potential threats to our freedoms. Armed with knowledge people can then make their informed decisions. *Current data protection and privacy laws around the world are about the rights of the individual in relation to the protection of their individual privacy.* A right is only as valuable as it is exercised by the citizenry. It is the exercising of our inherent rights that makes our society healthier and democracy stronger. Thus, it will be important to ensure that when electronic services are developed people are informed of their privacy rights either under existing legislation or specific privacy policies if legislation does not exist.

This then leads to the importance of why privacy should be perceived and dealt with as a human right. Canadian Senator Sheila Finestone has drafted a Bill to affirm privacy as a human rights instrument and presented it as a private initiative to the Canadian Senate.

Valerie Steeves, adjunct professor at Carleton University and a well known Canadian human rights and privacy advocate, said that this is a crucial right for all Canadians: *"this Bill is an important step because it provides the umbrella legislation, which places C-6 and the Privacy Act in a human rights context."* It is going to be crucial that privacy is seen and understood in a human rights context if we are going to have a debate about privacy and our fundamental freedoms. Human rights developed within the framework of democratic rights. The two are inextricably linked.

On a wider, international scale it is becoming essential that privacy be enacted as a human right. Current privacy laws are only a finger in the dike trying to hold back the billions of pieces of information now floating around cyberspace. *A broad right is needed that is not only enshrined in law but will create a culture around privacy as a human right.*

The Europeans recognise that privacy, as a human right, is implicit in their laws. Some form of international convention on privacy as a basic human

right is needed.

All these developments suggest a need for an International Privacy and Human Rights Bill. It is essential that such an instrument be agreed upon as a defence against the darker forces of technology that could erode our basic democratic rights. In a civil society it is crucial that we have such instruments that balance our individual rights against the wider forces that drive society. Perhaps the proposed Canadian Bill of Privacy Rights could be the banner to bring this awareness to the wider world beyond those countries that do not have some form of privacy or data protection law. The Canadian proposal could, conceivably, be a model for an International Declaration of the Right to Privacy.

CHAPTER SEVEN

ELECTRONIC DEMOCRACY IN A WIRED WORLD

"The Centre will create and maintain a body of ICT and other supporting skills, tools and techniques to facilitate the use of these advanced methods to support the democratic process and governments internationally. Specifically, its objectives are:
- to promote the application of ICT by governments worldwide in order that elected members and supporting staff can conduct their business more effectively and efficiently;
- to demonstrate how ICT can contribute to more openness and accessibility in government;
- to encourage and assist the public, voluntary organisations and business to participate in government through the utilisation of ICT;
- to conduct research in Teledemocracy to contribute to the academic status of the University;
- to establish an innovative research environment for members of the Centre."

(Institute of Teledemocracy, Napier University, Edinburgh, Scotland http://www.teledemocracy.org)

Introduction

This book has looked at the means by which governments are moving to electronic governance. In this context, governance can be seen as both a means to using new technologies to deliver services to the citizen and ways in which to change and improve the efficient methods of administration within governments themselves. Another element looked at in this publication is also a suggested means as to how governments will increasingly be able to involve citizens in the democratic process of government.

At this stage of development few governments have effectively been able to involve their citizenry electronically in the democratic process. Many governments have been effective dispensers of information, which often

passes as a means of enhancing the democratic process. There are many government initiatives seeking to help citizens to get on-line, seek feedback on government reports on-line, and develop listservs and discussion groups to elicit the views of the citizens. There are also many groups actively participating in on-line activities in the hope of influencing government policies. But for the most part, governments are far behind the activities of citizens on-line around the world, who see the Internet as a medium to foster, enhance and change the way people have traditionally engaged in the democratic process.

The story of the Internet and electronic democracy is a cautionary tale. Much of the enthusiasm and hope for new forms of democracy and citizen input into public issues, sound very like the gushing optimism expressed about the potential of television in its nascent years. It is not yet known if the potentials offered by the Internet will be met. Will the Internet become like television, an arid desert with only a small oasis of excellence? This is an important question because the potential is there for the Internet to become dominated by a few large, corporate interests, or subsumed by government regulation that could inhibit the freedoms offered by this new technology. At the moment the Internet is creating major change. One of these changes is in the ways citizens are engaging in the democratic process and beginning to change the face of democracy.

The Institute of Teledemocracy, quoted above, is just one example of the thousands of initiatives springing up in the on-line world. In the United States and Great Britain governments are looking at setting up on-line voting. The British Electoral Commission recently announced that they would be looking into the feasibility of on-line voting. A similar announcement was made in California in January 2000. February 28, 2000 saw the meeting of the first Internet Voting Technology Alliance in Washington, D.C. Initial participants included: *Safevote,* of San Rafael, California; *VoteHere,* of Kirkland, Washington; *Modulo Security Solutions,* of Rio de Janeiro; *International Foundation for Election Systems,* of Washington, D.C., and *e-Elections,* of Oakland, California. The group met to get public funding for their activities. The group's goal will be, amongst other things, to develop the proper tools and protocols to ensure on-line voting is safe and secure for the citizen and is not subject to corruption or manipulation. But this is a tool for voting under the current system of democracy as we know it. People were able to participate on-line in this opening assembly at HYPERLINK "http://www.ivta.org".

Governments, for the most part, are far behind the public in developing tools for electronic democracy. There are some good initiatives, such as the web sites of the British Prime Minister, which seek to garner public comment, opinion and discussion.

There was also an on-line consultation run by the British Parliamentary Select Committee on Public Administration. It was run from mid-November 1999 for one month, in connection with their inquiry into e-democracy and e-government. The on-line discussion centred on "innovations in citizen participation in government". The Committee sent out electronic notices, which were picked up around the world, asking people to send in their experiences in eDemocracy and eGovernance in general.

These are true steps towards electronic democracy. However, on the whole, governments tend simply to provide information on their web sites and use the Internet, and other technologies, to deliver services electronically. The prime example of this is the US White House site (HYPERLINK "http://www.whitehouse.gov" which is primarily an information tool and conduit to executive agency web sites. *It was only in January 2000 that President Clinton announced that government had to be interactive with the citizen. What that form will take has yet to be* announced.

The dispensing of information, without substantial input from the citizen, is not a real interactive transaction. Yet, the Internet in and of itself is an interactive medium. Individuals on the Internet understand this and, for growing legions of people, it is becoming a force that is changing the nature of democracy as we know it today.

But this is just part of the wider picture of developments in electronic democracy. In fact, individuals and groups are coming together on-line around the world to influence policy. Politicians are also using the web. In the United States every Presidential candidate has a web site. There are also alternative web sites by interested citizens or groups who want to have their say about the candidates. There are also other groups who are offering sites which will present in-depth analysis of the issues in the upcoming presidential and congressional elections as well as elections at the local and state level. Those wanting to check out the activities of the US Democratic Party or the Republican Party can go to either: HYPERLINK "http://www.democrats.org", or HYPERLINK "http://www.rnc.org" If you want in-depth details on the 2000 Elections in the USA you can go to: HYPERLINK " http://www.Politcaljunkie.com" There are also many independent sites that either oppose the mainstream candidates, satirise the candidates, or

offer alternative in-depth information and analysis of the issues. But the phenomenon of engagement in politics on-line is not restricted to the United States.

There are thousands of other individuals who are active on-line and attempting to either get more information from their government or to influence policy. The on-line world of democratic activism is growing around the world. *This chapter looks at the overall impact this trend in electronic democracy is having both on government and on the citizen.*

The first section of this chapter looks at the emerging trends in electronic democracy, how citizens active on-line are changing the nature of democracy as we have understood it and how governments are going to have to tap into this emerging trend. This section shows the distinction between on-line democracy, and what its participants are achieving, and electronic governance in general.

The following chapter contains an article written by Steven Clift, an On-line Strategies consultant, based in Minneapolis, Minnesota in the USA. Steve has been actively helping groups around the world to get organised on-line to take part in the political and democratic process. He runs a democracy on-line service, DOWire. He can be reached through his web-site at: HYPERLINK "http://www.publicus.net". From this site you can subscribe to DOWire. Any individual interested in developments of democracy on the Internet or want to get involved should subscribe to this free on-line service.

The Changing Shape of Democracy Today

Introduction

In a virtual world the communicators will be our leaders in the future. The Internet is increasingly playing a major role in our system of democracy. As political and activist groups grow in greater numbers, new leaders will emerge. At the moment the Internet defies any type of classification but it is evident in the on-line activist world that individuals with energy, drive and initiative are helping to propel the new political agenda. This new political reality, *cyberism,* is starting to be felt.

There are currently over 150 million people on-line in Canada and the United States as of January 2000 (NUA surveys – HYPERLINK "http://www.nua.com"). It is estimated that by 2002, 60% of the popula-

tion of the United States and Canada will be on-line. These types of numbers means that a certain critical mass is fast approaching that make the on-line world a political force to be understood. The on-line world is no longer composed of mostly highly educated, higher than average education computer savy computer users but a broad spectrum of society, including many in low income levels. But it is a force to be galvanised in the "click and go" generation. This is no longer an elitist medium. It is ripe for a new populist movement. Arguments may be made that a TV generation who wants dirty political issues (such as the behaviour of their President) to go away can be galvanised into new forms of direct democracy. People in democracies do tend to get upset when governments intrude into their lives (whether rightly or wrongly). Our democratic societies are ripe for political change.

We see threads of this now appearing on the Net. *Political activism and differing forms of electronic democracy are quickly emerging.* With new technologies and the growth of the Internet we are witnessing the rise of *on-line groups dedicated to specific political issues and the electoral process.* This is important for people in government to understand as these new dynamics are going to change not only the political map of governance but also the very nature of government. The citizenry is at the door and, increasingly, they are going to be more involved with the process of government. As an interactive medium the Internet is a natural medium to bring such change. There is so much information on-line and such infinite opportunities to engage the individual that some services of government will soon become redundant. This is not idle speculation but emerging fact.

It can be expected that within the next decade we will see the voters in the United States, for the first time, casting their votes in congressional elections. This is not an unlikely scenario, as can be seen below as governments increasingly look at ways to allow on-line voting over the Internet. The technology to allow secure on-line transactions already exists to allow such voting. There will be many barriers to overcome including ensuring that people who do not vote on-line, or do not have access, also have both the opportunity to vote as well as ensuring the ability to vote is made easier.

In the November 1998 US gubernatorial Election in Minnesota, Reform candidate, Jesse Ventura was elected as governor. Part of his success was his expert use of the Internet to bring voters to buy into his political message. There were many off-line factors at work that got him elected but the creative use of the Net contributed to his upset victory. Essentially, his

organisers recognised that the value of the Internet lay in the ability to use it as a new and effective organisational tool. Its principle success lay in the way the campaigners for Jesse Ventura ensured that the Internet was a tool to be used by the interested citizen to assist in getting their candidate elected. Thus, citizens were able to input information into the campaign on-line as much as the campaign was able to send information out to people in the on-line world.

In France the Internet Society France sponsored an event from March 19 to 25, 2000 called *"Internet Law: Conquering a Global Village."* It was a "virtual" session which allowed all interested Internet users to assist in the process of revising, drafting and passing a law on governing the Internet. The French Senate was working alongside the Internet Society with the objective of passing a mock law based on use of the Internet. A recent French government report said that existing laws basically covered the Internet but did point out some might need to be modified. This event gives on-line Netizens the opportunity to give their input as to what shape the Internet will take and how existing laws shall be applied. This is one of many "virtual" ongoing events around the world. In the United Kingdom the Government has worked with on-line groups not only to evoke discussions on various policies but also to actively engage citizens in the debate. Increasingly, many on-line events are occurring without the direct (or indirect) input of government.

During 1997 and 1998 public interest groups and non-government groups came together on the Net to actively fight against the Multilateral Agreement on Investment (MAI) being proposed through the Organisation for Economic Co-operation and Development (OECD). Through the galvanising of world support this MAI was dropped from the agenda and no agreement was signed. It has been referred to the World Trade Organisation for consideration and any agreement may now take years to achieve.

In the United States many groups have been galvanised on the Net to impact on a piece of congressional legislation at either the Federal or State level. Politicians recognise this as a new political force to be reckoned with. In Canada Members of Parliament regularly receive large amounts of e-mail from their constituents or constituents from other ridings. They know that each one has to be answered. The burden to do this is growing. When proposed legislation goes before Parliament on-line discussions ensue. This is a voice politicians are going to have to start listening to. In the past discussions tended to take place between the public service level and academics, public interest groups and experts when legislation or pol-

icy issues were being developed. To a certain extent this controlled the legislative agenda from germination, through the public service level when being developed and the political level (Parliament) when moving towards law. Now there is an uncontrolled element in society, the citizens at large, who will use the mechanism of the Internet to have their say.

These are just a few examples of the legion of on-line activism now emerging. There is not enough space here to articulate the thousands of groups bringing change around the world. Governments are currently contributing to the developing infrastructure, through a diversity of programs such as Connecting Canadians or the Service Canada initiative now emerging to deliver electronic services at all levels of government through integrated systems. But that is all it is – contribution. They are not going to be able to control the results. The Canadian government is to be lauded for their contributions in making Canada a leader in the developing of the on-line world that is benefiting many strata in society. However, the irony in all this is that it is their very contribution that is going to lead to new systems of government and governance making them the instrument of change of their own institutions.

In the past few years it has been fashionable to say that the youth of today will bring the changes of tomorrow as they are growing up with technology as part of their lives. To them technology usage would be as natural a part of their lives as breathing. Such is the dizzying pace of change that technology is bringing to society, that it is now true to say that so much of society has adapted to Internet technologies that the current users of all ages are now contributing to the broad shifts in our society. This impact will be felt in the next few short years. A decade from now we may not recognise the political landscape as it currently exists. An Internet year represents for change what was once a hundred years in the old off-line world. There are many challenges ahead for governments everywhere in the free world.

Democracy in the Wired World

In the wired world the on-line citizen is increasingly playing more and more of a role in the democratic process. There are now hundreds of groups involved, from the community and local level to the national and international stage, in some way working to have an influence on government policies and programs, and on societal issues of our age. Citizens are engaged on-line in citizen to government interaction, citizen to group, group to government interaction and, the most predominant, citizen to cit-

izen engagement on the social, cultural and political issues of the day.

Because of these changes, the process of government will soon no longer be controlled from the top and micro-managed by a few. In the changing wired world citizens are voicing their say. Governments may not necessarily be listening but the thousands upon thousands of people engaging in discourse on the thousand and one issues of the day are certainly listening to each other. This is resulting in powerful currents of change which are only beginning to manifest themselves. The new voices are by no means cohesive as there are so many dissonant voices and disagreements on what exactly on-line activism means. Also, as can be seen when analysing the on-line groups, often many do not know of the existence of others but this could change as groups and individuals with similar interests find each other.

Electronic Commerce (eCommerce) currently dominates the mass media as the main phenomenon of the Internet. But the real story lies in the changes being brought by the thousands of groups and people on-line around the world, who are engaged in some sort of civic activism, political engagement, or just plain discourse and debate on the issues that are important to them.

The most evident manifestation of this was in Seattle in December 1999. The massive protests in Seattle over the World Trade Organisation's (WTO) meetings demonstrated the power of the Internet in bringing people out to express their demands to be part of the process. These people were determined to have their say. Not only did they express their beliefs and ideas but governments were forced to listen. There is some growing awareness in government that their old dynamics of secrecy, closed meetings and invitations of the special few to be part of the process, are starting to fade. In Seattle we saw the first shot fired across the bow of the old world order of democracy as we have known it. What we are witnessing is an emergence from the traditional forms of representative democracy to a new form that has yet to be given a name. For the moment, we can call it cyberism, as an expression of a particular form of politics. But that is still an expression born out of the old paradigm.

The new democracy we see surfacing is more the expression of individual voices that congeal into a collective whole over ideas that the society of peoples on-line develop into a consensus. And while a consensus might be formed on major issues, individual people are still in a position to express their individual thoughts and ideas (even if they range from the erudite to the opinionated). Many groups, such as Minnesota E-

Democracy are very effective at the local level and people quickly buy into local issues. For example, Steven Clift of Democracy On-line Wire (HYPERLINK "http://www.publicus.net" gives an example of how he was able to start a city wide debate on the subject of squirrels as a health problem. This spread throughout the community and into the mass media. The subject of squirrels thus became a major subject of on-line discourse because there were so many people who had experiences with squirrels and thought this represented a health problem.[41]

In this emerging world we see the evolution of a *true populist democracy:* although people's ideas do not necessarily have to be individually acted upon, the means exist for individuals to freely communicate out to an audience. That audience can be large or small but it represents a freedom for the individual that has not existed up to this point in time. The mass media still hold the reigns of mass communication. It is still important to get that letter to the editor published so you can reach a wide readership. But with this new medium of the Internet you can write something and it will reach the level of interest in the audience out there.

In Seattle, the initial protests were organised off-line and on-line. And it was the Internet that gave this movement the international momentum to make it the effective demonstration and the somewhat collective voice of outsiders it became. It was the clarion call for democracy from voices across the world. It has become the symbol not only for the voices able to speak from the Internet, but of the fact that the citizenry has found the ideal tool by which they can bypass all the normal channels of government. This is not a small development at this stage in our history. Many people talk about the Individual being in control, or having great power because of the ability to tap into the world through the keyboard, but it is not certain if the real power is understood. It has mostly been identified as the power of the consumer to buy the product he wants, or read the on-line newspaper of choice. In fact, what has actually happened is we have collectively opened a Pandora's box of energy, ideas and passion about the things that matter in people's lives. And it really is too early to state exactly all the changes that will occur as a result of this. It can be said with certainty that there is a powerful current of knowledge and ideas now circulating the world.

Another example of an issue that is spreading across the Internet is the announcement in November 1999 of the proposed merger between AOL and Time Warner. Discussions started on-line in the United States and Canada and quickly spread around the world. Anxieties were expressed about the possible ramifications for free speech, censorship, creative free-

dom and diversity, when such a giant conglomerate emerges to dominate the media. As the conversations and rumination on this issue grew around the world, expect this on-line concern surfaced in the mass media. The New York Times (January 14, 2000) has already published an article by Tom Rosenstiel, Director of the Project for Excellence in Journalism in Washington, and Bill Kovach, the curator of the Nieman Foundation for Journalism at Harvard. The authors question the whole wisdom of the merger and the ramifications for press freedom in the US. The Independent newsletter in London, England questioned the wisdom of such a merger as has the LA Times. There is a growing anxiety by many that such a merger is going to have very negative impacts on the Internet.

This Time Warner and AOL merger is an example of the bigger story called the Internet. Any idea, piece of information, tidbit or whatever gets put onto the Internet (much of it rumour, opinion or misinformation, it is true, but also much of it is factual) and it spreads like wildfire. In the wired world we have seen time and distance cut to almost zero. The result is that information and knowledge travel almost at the speed of light around the world.

What once took months or years to turn into an issue now can occur in less than a day. This is the true power of the citizen. This is the story of the evolution of a truly populist democracy, an emerging democracy in which issues are being transformed from the hands of the few elite to thousands (and one day will be millions). It is like throwing one seed into the garden and from it a flower grows. Throw the seed of an important idea or issue out onto the Internet and it flowers thousands of times over. This is a key development in our evolution at this point in our history. Central to this development is the degree to which people can communicate, form opinions and judgement, and then act upon them. The Internet is a medium that allows ideas to flow among thousands of channels. People are empowered not because one can get onto the Internet and get a product, read a newspaper or research out some knowledge. That thinking is from an old paradigm succinctly expressed in the saying: knowledge is power. The new paradigm is the ability to talk back (true interactivity), dialogue and go to whatever source an individual wants to choose. This is not to say there are thousands upon thousands of people out there engaged in political activism. There aren't. There are legions of people who are out there ruminating and thinking, or engaging in conversation (or whatever activity one chooses). Many of these people are not restrained by the dictates of mass media which tell us what we must read, what is the story of the day, or what we must listen to on the radio or watch on TV. None of these media afford the independence of operation that the Internet allows.

This is another reason why the Internet is developing into such a strong, world political force not captured by boundaries, time, space or distance. It is true that many in the on-line world still very much reflect their religious beliefs, cultures, ethnic or political bias. But beyond that lies the opportunity to break away from the intellectual and emotional chains of the past and be free as an individual. And this is occurring on the Internet. However, even with these changes, there are still opportunities for governments themselves to benefit from the changes. There are also efforts by many governments, worried about the potential freedoms a medium such as the Internet brings, to curtail both access and content on the Internet.

Because the Internet as a medium is becoming the tool through which the nature of democracy itself is changing and taking new shapes and forms, it is important that governments understand this phenomenon. Increasingly, public officials and elected politicians are going to be faced with not only an informed citizenry but a citizenry that wants to be engaged in the decision making process in some form or another. An analysis of the numerous groups springing up on the Internet on a multitude of issues illustrates that there are voices out there that governments are going to have to tap into.

The Intellectual Capital of the People

The Internet has brought about a decentralization of power. In the wired world, individuals can now make their own choices as to which authorities and information sources they will accept. This is leading to a greater democratisation of knowledge, empowerment of the individual, and the potential for more informed interactions between the citizenry and organisations, including government. Moreover, since individuals now have ready access to a variety of information resources, organisations have to adopt new proactive measures to compile and disseminate information in a competitive information environment.

A citizenry that is able to seek and obtain information and knowledge from any place in the world through the Internet will, in all likelihood, also expect more from government. There is also the opportunity for a paradigm shift in which governments benefit even more from the intellectual capital of the citizenry. In a knowledge-driven economy, the intellectual capital of the citizen could become governments, and society's, most important asset. Knowledge management (KM) principles can be the key to managing this transition and effectively creating this new, inter-

active knowledge-sharing environment.

Application of KM principles will also be necessary if government institutions are to maintain a role as an authoritative source of useful and relevant information. With public perceptions continuously changing due to the empowering nature of communication technologies, new creative and innovative environments will continually evolve on the Internet. Many authors like Andrew Shapiro, the author of the *Control Revolution: How the Internet is Putting Individuals in Charge and Changing the World,* Perseus Books, 1999) contend that the nature of government and governance will be transformed as a result, driven by the changes technology is creating in society.

In Canada, the federal and provincial governments are moving more and more towards the electronic delivery of integrated services across the country, as evidenced by the federal Government's SERVICE CANADA initiative. The federal government is, at present, the single, largest repository of information. In the knowledge economy it is not going to be enough solely to connect Canadians to the Internet (though it is a major start to make Canadians the most connected people in the world), but more importantly to facilitate the development and usage of information.

The Internet: A Technology of Social Transformation

This is one of the true marvels of interactive technology: the instant ability to spread your unexpurgated words – a piece of yourself, really – to the four corners of the earth. Even in the rush of millennial tidings, the singularity of this achievement cannot be overlooked.[42]

It important for governments to understand the relationship between governments and the phenomenon called the Internet because this new medium is dramatically changing the way the individual citizen will interact with governments in the future.

The Internet is a technology of transformation. Each individual user instantly adapts it to his or her own uses. As a result, we are witnessing the emergence of individual identities in cyberspace and unique communities that are independent of time and space. The paradox of the Internet is that it is composed of individuals, all expressing their individualism, who see themselves as an integral part of a collective whole.

Organisations and, in particular, public sector organisations, must adapt to

a new world order of informed citizenry with the ability to establish their own communities of interest, independently seek out global information resources, and form their own distinct views of the world around them. The exposure of the individual to the world of the Internet has profound implications. We are developing citizens of the world. Furthermore, as the cost of Internet access diminishes (both the price of Internet-capable computers and access fees), we can no longer look at people in the old terminology of being "information rich" or "information poor".

In the non-linear world of the Internet, the important thing is not that cyberspace is borderless. It is that people's perceptions of the world are different than any previous time in history. For example, in the recent Kosovo war, the "official" positions of the NATO allies as disseminated through the mass media were counter-balanced with many diffuse voices using web sites, newsgroups, live cameras on the Internet, and Internet Relay Chats (IRCs) to present a contrasting picture of what the war was really all about. This has raised speculation on the Internet and in the mass media about what the influence and role of the mass media might be in the future. Andrew Shapiro has traced the increasing loss of public confidence in America towards the media as well as towards public and private organisations of all types.

According to Shapiro, Americans' confidence in government has fallen precipitously from the 1960s to the 1990s. In 1964, three-quarters of Americans said they trusted the federal government to do the right thing most of the time. Now only a quarter of Americans say this. Similarly, public confidence in universities has gone from 61 percent to 30 percent; in major companies, from 55 percent to 21 percent; in medicine, from 73 percent to 29 percent; in journalism, from 29 percent to 14 percent.[43] As we reach a critical mass of people connected to the Internet , estimated by NUA Surveys in Ireland, (HYPERLINK "http://www.nua.org" to be 60% in North America by the year 2002, this is possibly going to result in even more societal change. With an aware, symbiotically connected citizenry, public sector organisations will face an increasing challenge responding to the continually evolving knowledge economy and the sweeping social and cultural shifts that will come with it. Knowledge management could be one of the applicable tools to use in the coming transformation.

However, the true change coming on the Internet is not that which will emerge as a result of government's capacity to tap into the large intellectual capacity of the citizen but the roles the citizen themselves will take in working to influence, shape and form public issues of the day. We as a people are the progenitor and creators of our societies. Never before in

history have we been in such a position to affect so much change. What we are witnessing on the Internet is a new force of change never before witnessed. This is a moment in history that contains a vast potential for political change.

In the next chapter Steven Clift of Democracy On-line looks at some of these shifts in democracy on-line with some specific examples of how groups and individuals are interacting.

CHAPTER EIGHT

ELECTRONIC DEMOCRACY ON-LINE

(**Note:** This Chapter is the result of an article-download from **Democracies On-line:** HYPERLINK "http://www.e-democracy.org/do" and is reprinted here with the permission of Steven Clift, E-mail: clift@publicus.net, Web: "http://www.publicus.net" Telephone: +1.612.822.8667. Some editorial work has been exercised on the original article to conform in style with rest of the chapters).

Introduction

The Internet will save democracy. Or so the early 1990s techno-hype led many to believe. With each new communication medium comes a wide-eyed view about its potential. It is suggested here that just as the television saved democracy, so will the Internet. With the starting point set at a low expectation anything we do incrementally to improve democracy through the Internet is something we can consider an accomplishment. On many of the authors speaking trips, the author finds that journalists in particular like to ask about voting on-line. There are questions about the many commercial Web sites that offer instant polling for people to vent their opinions. In time, many countries will leverage electronic commerce to allow people to vote via their preferred technology. In one scenario, citizens will receive ballots in the mail if they have registered as at-home voters. They would then return the ballot through the mail, or use a Touch-Tone Telephone leaving their voice signature, or use the unique information on their ballot to vote via the Internet, leaving their digital signature, of course.

Neither the voting technology nor on-line polling justifies official use by any government. Their technical existence will not bring about more frequent use of referenda or a more direct democracy. The decision to apply technology in official elections will be a difficult political choice. It will have more to do with how those in power feel it will influence voting outcomes than whether the public wants the option.

We all have different definitions and experiences of democracy. Focusing on the Internet and participatory democracy within the context of representative democracy uncovers some exciting developments. The reality is

that our many, and quite different, democracies are changing because of the use of information technology and networks. We don't know whether the changes will be for the better or the worse. The fundamental question we must ask ourselves is: As democracy and the Internet converge, how must we be involved now in order to improve both?

The challenge for us, as citizens, is to be engaged in this process of change. We will be engaged through our existing institutions, be they non-profits, universities, the media, companies, or governments. We will be involved as individuals and through the creation of new, mediating citizen organisations that are of the Internet, not just on it. Focusing on the part of democracy that happens between election days, we are experiencing a convergence of democratic institutions and processes with the Internet. Democracy is on-line.

The primary democratic sectors that are flooding the Internet with political information are government, the media, and advocacy and political interest groups. The private sector and others in the information technology industry are developing information and communication tools that are used in this arena. Each sector is making a contribution to democracy on-line.

Government On-line

Government On-line, as it is called, is making democratic information available like never before. Parliaments, legislatures, city councils, and even neighborhood councils are making available lots of laws and proposed laws, meeting agendas and minutes, elected-official contact information, and other reports. The many chapter authors of the G7 Government On-line and Democracy White Paper, of which the author of this chapter serve as co-editor, is a sign that governments around the world are entering a new phase of analysis and action to improve their contribution to democracy on-line.

Even though systematising user-friendly and deep access to government information is an important priority, a few interesting exceptions to the one-way model exist. The Moira Shire Council, in the state of Victoria in Australia, uses a public Web board to allow citizens to submit questions for the council to address during its official question time. The council then summarises the meeting discussion for release on-line. In Murphysboro, Illinois, a local Internet service provider (ISP) has partnered with the city council to make live audio available, with a corre-

sponding on-line chat for citizen-to-citizen interaction during council meetings. The government of Canada maintains an index of the on-line interactive consultations from a number of its agencies. As will be noted later, evolution toward interaction is essential for full realisation of the potential of existing and future Internet tools to promote greater public participation in government.

Governments, however, do have a special duty to ensure broad access to formal participatory events. So on-line interactive events geared toward the general public should complement corresponding opportunities that are available to all regardless of their knowledge of or access to the Internet. Organising government information - especially laws, rules, and regulations - into a combined pull-and-push system may represent the ultimate on-line contribution for participation in governance. Citizens could indicate interest in a certain topic area or a specific law and be actively notified whenever changes are proposed. This might work well with larger, more sophisticated legislative information systems. Many serious policy questions will arise: To what extent should a democratic information system serve the interest of those who govern versus those who want to influence how they are governed? And how will the Internet public-access infrastructure in libraries, schools, and other locations be part of a democracy network for broader use that includes some training and assistance?

Media On-line

Media efforts, especially those of on-line newspapers and magazines, have made the largest investment in making content available on the Internet-and it shows. It is likely that they receive most of the public Internet traffic from those seeking news and information on the issues and happenings in their democracies. The major scarcity on-line from a user perspective is time. From an on-line business perspective it is attention. With attention come the abilities to promote your content, attract banner advertisements, and create opportunities for commerce. In many places the major virtual navigation pathways are consolidating in major Web index, search sites, and more-local sites often tied to major media outlets. It is from these pathways that more and more of the public find the essential editorial service that allows the public to quickly digest political news and commentary.

The approaches and contributions of media and major commercial sites to democracy on-line are incredibly important. How they leverage their

audience for their own as well as community partnership efforts puts them in a strong position. For example, the decision to link directly to the full government report within a story encourages deeper understanding, but also sends them away from the media outlet's own site. Another contribution is hosting interaction through Web board discussions on stories and local topics in general. Depending on the resources put into hosting such discussions, some are quite successful and others have had great difficulty with sustained participation. Since 1996, in places where the Internet is well established, most national elections since have seen major media efforts to make election-oriented news and basic candidate information available. In some sense, the amount of information -especially in more populous nations - is almost too much for the average citizen to wade through. With each election cycle, we will probably see more localisation of content and additional media outlets with more niche content. As they say, all politics is local. Overall, it will be interesting to watch the role very local media outlets take as the sizes of local populations on-line make it commercially viable to place functions of the neighborhood or rural weekly newspaper on-line.

Advocacy On-line

Many advocacy and political interest groups, including political parties, have an on-line presence. The early adopters rushed on-line with Web brochures, yet few are kept up-to-date. Some advocacy groups and political parties maintain extensive amounts of information; others take a minimalist public approach. The use of the Internet in organising and advocating their positions to government and others is more notable. The use of e-mail and of the Internet's many information resources is changing the way these kinds of groups function. Most advocacy applications usually are tied to an in-house champion or dedicated volunteer, and only a few have moved toward a strategic or co-ordinate approach by an organisation as a whole.

From an advocacy perspective, a good Web hit is when someone finds the cause compelling enough to leave an e-mail address for future updates. Some advocacy examples include the **Global Internet Liberty Campaign,** which provides e-mail updates on a regular basis. Another is the **California Voter Foundation,** which provided lobbying advice on whom to contact in support of its successful effort to pass laws that would require electronic campaign finance filing and public access. And the **Congressional Accountability Project** is building support for legislation that would require on-line public release of US Congressional Research

Service via e-mail updates. All of those efforts use the Web to provide ongoing access to important background information and archives of the information they distribute.

We are now seeing the *next generation of advocacy efforts migrate from primarily Internet-related advocacy toward sustained general advocacy.*

One of the more interesting advocacy efforts supporting use of the Internet was **Citizens for Local Democracy** in Toronto, Canada. While hundreds met regularly in church basement meetings to organise opposition to the province-directed amalgamation of six cities into a larger Toronto, the on-line component used e-mail announcements and discussion lists to accelerate information sharing and strategy development. Tracking those experiences lends support to the feeling that the Internet is an excellent tool for high-energy, short-term opposition efforts. The Internet is more difficult to use over the longer run, when the concerns of a vocal few get amplified to give a sense - perhaps mistaken - of reduced consensus. Overall, the author has not experienced an on-line interactive space that has been successful in generating group consensus on a specific action to be taken. There needs to be a general consensus on positions from the start. A more detailed understanding of positions and options through on-line interaction has been experienced a number of times to greatly enhance and expedite decision making.

The Private Sector and Internet Tools

The private sector - in particular, the information technology and telecommunications industry and the academic research community - and individuals are developing information and communication tools that provide the infrastructure for democratic use of the Internet. The amazing pace of, and competition in, development of Internet-savvy applications are based on the business case that someone will pay for some mix of goods, services, experiences, and content. It may be through advertising that much of the content and on-line experiences are covered. When it comes to democracy on-line, a good portion of the activity may be sustained through commercial models. If commercial and government activity covers 85 percent of democracy on-line activity, the challenge will be to leverage those applications for the remainder by means of non-profits, voluntary associations, and individual use. Acceleration of efforts that leverage electronic commerce and group communication tool developments for public use is an important priority.

In the area of Internet standards, it is also clear that commercial goals are driving the development process. Accepting that this is the engine for development, how might we integrate the needs of communities and democracies? In short, if we can engineer the best technical methods to facilitate electronic commerce, how can we best engineer the Internet to ensure that important aspects of democracy remains upheld and cherished?

With democracy based on the realism of geography, finding ways to tap more-global economic growth in the commercial areas of the Internet for support of local applications will be important. Whether through grants by corporate and other foundations, gifts from individuals, or commerce mechanisms to create electronic versions of bake sales, the opportunity to resource community interest applications presents itself.

Building Civic Life On-line

As the sectors of democracy develop and deepen their content-oriented contributions to democracy on-line, we need to ask, What is missing? Have you ever seen an elected official stop by an on-line newspaper's Web board and say, I'll check back once a week and find out what you, my constituents, want? Have you seen a local citizens organisation become established based on discussions that started on a newsgroup? How about competing on-line media sites that both offer a URL to their related articles on the same e-mail discussion list? In the last 10 countries in which the author has undertaken talking assignments this is where a number of questions became relevant. Imagine, if you will, four slightly overlapping circles representing the positive contribution government, advocacy/political interests, media, and the private sector make to democracy on-line. Where do those institutions interact with each other on-line? They don't. Where do citizens publicly interact with them? They don't. The one-way transfer of content to the Internet has been relatively easy and fairly successful. For the most part, existing democratic institutions use the Internet in their own interest. They must to survive. It is extremely rare for any group to build on-line efforts - at its own expense - that undermine its influence or to open itself up to greater public scrutiny. This does not mean existing organisations will not interact on-line - just not if the interactive host is perceived to hold a position counter to their goals or if an interactive on-line event's success is placed totally on their shoulders. Attempting to host either organised or open, on-line interaction can be very resource intensive and risky. Now overlay a fifth circle: the citizen participation centre. The interactive centre is a politically neutral

forum for citizen-to-citizen interaction on important public issues. Such interactive forums, using multiple technologies, will help democracy on-line come alive around the world.

Embracing geography as a vital component of the Internet, real communities using virtual tools will facilitate public communication on issues - starting in our neighbourhoods and local communities and going up to regions and states as well as the national level and among people from many nations. Just as we have used the Internet to escape our geography through global forums based on specialised, narrow interests, we are now discovering we can use the same tools to come home to on-line forums in the common interest. What we need is a generation of on-line democracy and community home builders. This derives from broad definitions of politics and democracy. Some use the term community networking when referring to local interaction. As the population in any given jurisdiction shrinks, discussions become less ideological and the forum is of more interest to a broader cross section of the population. On-line community conversations are more about having focused discussions - in a public commons, hopefully - not about transferring the often irrelevant and harsh style of global political newsgroups into local communities. In some cases, these conversations will influence government and the media, but more often they will influence the participants as citizens and effect how those citizens interact with the broader world. A hybrid is emerging between the ideals of the global Internet and the corporate intranet: the application of a mix of e-mail lists, newsgroups, the Web, and chat in very public ways among those who are citizens or interested in the happenings of a specific place. The three democracy on-line interactive projects the author is most familiar with are **Minnesota E-Democracy**, **United Kingdom Citizens On-line Democracy**, and activities of **Malaysia.Net**. Active sharing of lessons, experiences, and networking through such projects as Democracies On-line provide a foundation for greater citizen participation in democracy through the Internet.

Minnesota eDemocracy: http://www.e-democracy.org

Minnesota E-Democracy was established by a dedicated group of volunteers in 1994 in order to promote participation in democracy through the use of information networks. It has received extensive infrastructure support from the *Minnesota Regional Network (MRNet)* and the *Twin Cities Free-Net.* In 1994 the project put most of the candidates for governor and US Senate on-line via the world's first election-oriented Web site; it held the first on-line debate via e-mail among candidates at that

level; and it launched the MN-POLITICS e-mail discussion forum. Today the MN-POLITICS forum stands out as the public commons or citizen participation centre. With a total of about 400 direct subscribers maintained over three years, the forum is now part of real politics in Minnesota. To date, for example, the media is known to have picked up a number of stories. The state treasurer announced the day before his press conference that he was not running, an official political action committee was conceived and registered by a group of list members who were against public financing of a baseball stadium, the wife of a candidate for governor in 1998 posted messages in support of that campaign, and the St. Paul City Council president used the list to distribute draft legislation and ask for input.

Many of the discussions are fairly abstract, but the focus on Minnesota issues and a participant audience that includes citizens and reaches into most of the power circles in the state make the forum an important open public-opinion sphere. As in 1996 in another US Senate race, a series of e-debates were planned for the 1998 race for governor. These important events, co-sponsored by on-line media sites and other organisations, position Minnesota E-Democracy as a trusted, neutral host that can increase the value of the democracy on-line contributions of all of the sectors.

United Kingdom Citizen On-line Democracy: http://www.democracy.org.uk

UKCOD, an independent, nonpartisan effort, began work well before the national election in the spring of 1997. It hosted a number of topical events on such topics as European monetary union efforts and on-line delivery of government services, and it held an all-party debate during the election. It developed an on-line interface that uses e-mail lists as the engine behind a clean, Web-conferencing interface. In December 1997, the UKCOD launched the world's best example of a partnership involving a national government and on-line consultation right to the Cabinet Office. **The Have Your Say** site lets the public provide the government with feedback on the proposals within the Freedom of Information White Paper through February 1998. This project is envisaged to have a profound impact on possibilities in the rest of Europe in general and throughout the Commonwealth countries in particular.

Malaysia.Net: http://www.malaysia.net

The SangKancil mailing list is named after a mythical underdog in Malaysia: a deer mouse that scares away a tiger. Hosted by an ISP owned by a Malaysian national in Sydney, Australia, it illustrates the power of an open forum in an environment with a culturally restrained media. A well-respected journalist - in the same generation as the leaders of the country and who is no longer published in print in Malaysia or Singapore - writes news stories for over 800 subscribers. They become talking points on the list. Indicating that the posting circulates widely in the government, Malaysia.Net has received messages containing clarifications from high-level officials. With an estimated 90 percent of subscribers in Malaysia, the fact that the servers are in Australia points to the complex cross-border impacts of the Internet.

Other Democracy Forums

Another nonpartisan project of note is the recently launched **Nova Scotia Electronic Democracy Forum,** starting with elections in the spring of 1998 in Nova Scotia, Canada. In addition, **Project Vote Smart** has provided extensive information on US congressional candidates since 1994. And the **Democracy Network** based in Los Angeles provided extensive Los Angeles election information in the spring of 1997 and partnered with the **League of Women Voters** in Seattle and others for local elections there last fall.

On recent public-speaking trips to Australia and New Zealand, the author found considerable interest in creation of both local forums and national forums there. The University of Swinburne in Australia is working on public forums related to constitutional reform that complement the government's official constitutional convention site quite well. And an Australian Electronic Democracy Project has been proposed, as has a project based in Barcelona, Spain.

Conclusion

Perhaps the most democratising aspect of the Internet is the ability for people to organise and communicate in groups. It is within the context of electronic free assembly and association that citizens will gain new opportunities for participation and a voice in politics, governance, and society. In the next decade, those active in developing the Internet and those

involved with improving democracy have an opportunity to sow the seeds for democracy on-line in the next century. Like the founding of any modern nation, the choices made today, the ideals upheld, the rules adopted, and the expectations created will determine the opportunities for democratic engagement for generations to come.[44]

CHAPTER 9

ELECTRONIC GOVERNANCE AND ELECTRONIC DEMOCRACY: *LIVING AND WORKING IN THE WIRED WORLD*

RECOMMENDATIONS

There are numerous ways that governments at the local, regional and national level can facilitate these new forms of democracy that are emerging. One is to take the example of Canada. The Canadian government, through their Community Access Program (CAP) has a goal to establish over 10,000 public access sites in rural and urban communities across Canada. Launched in 1994, CAP has already established over 4,200 sites in approximately 3,000 rural and remote communities and is a key component of the government's "Connecting Canadians" strategy - aimed at making Canada the world's most connected nation." The program is now being expanded to include urban centres with populations over 50,000.

CAP matching funds of up to $17,000 per site are available to eligible applicants such as educational institutions, public libraries, community organisations, and municipal and territorial governments. The community funds can include cash or "in kind" contributions such as facilities, equipment and staffing of public access sites.

This is a good model to be followed not only by national governments but international organisations. If we are to handle the digital divide between those who have the opportunities to be on-line and the vast numbers of people who cannot necessarily afford the costs of going on-line, it is going to be essential to level the playing field. In any populist democracy it is important that initiatives embrace all the people. At the moment it is estimated there are only between 150 and 200 million people on-line. These are small numbers where our world population has exceeded 6 billion people.

International organisations could also provide programs to educate people on usage of the Internet. Education then leads to individual usage. It will,

naturally, vary from individual to individual but through knowledge of how to use the Internet people can be participants in this new trend in democracy as they see fit. Such programs can embrace many peoples around the world and ensure that the users who most benefit are not just those in the affluent, industrialized countries.

National Government should seek ways to engage their citizenry in the process of government. They can do this in many ways such as the following:

- ❑ Making more information available on-line from government itself to ensure there is an informed citizenry;
- ❑ Providing web sites that seek input from people on all manner of government programs and issues;
- ❑ Developing listservs and discussion groups on important national issues and other means to engage the citizenry;
- ❑ Provide grants to organisations seeking on-line democratic activities;
- ❑ Develop local community projects that embrace all levels of society from the academic world, to businesses, large and small, to non-profit and volunteer organisations.

As indicated above the Internet is a medium that has allowed people to involve themselves in the democratic process in new and unique ways. Governments at all levels and international organisations will increasingly be impacted by these changes. Thus, there is also a need for awareness building within governments and international organisations of the changes that are occurring. This can be accomplished through educational and training programs.

FOOTNOTES AND COMMENTS

1 New York Times 16 02 2000.

2 Government Direct, November 1996, The Stationary Office Ltd., PO Box 276, London, SW8 5DT pp 6 - 7.

3 IBID pp 13-14.

4 IBID p.15.

5 Jack Cunningham, Minister for the Cabinet Office, *Introduction to Modernising Government,* March, 1999. HYPERLINK "http://www.ccta.gov.uk/corporate/modern.htm"

6 Interview, Andrew Jordan, Head, Central Information Technology Unit, UK Cabinet Office, London, June, 1997 and press release on *Modernising Government,* Cabinet Office, April, 1999.

7 Prime Minister Tony Blair, *Foreword, Modernising Government,* March, 1999, The Stationary Office Ltd., PO Box 276, London, SW8 5DT or HYPERLINK http://www.ccta.gov.uk/corporate/modern.htm http://www.ccta.gov.uk/corporate/modern.htm

8 Downloaded from HYPERLINK "http://www.number-10.gov.uk/ http://www.number-10.gov.uk/ 15 April, 2000.

9 Note: The following section is part of a paper written by the author entitled: *Knowledge Managemennt: An Evolving Discipline,* February 2000, pp 19-22. It was prepared for, and published by, Canada Institute for Scientific and Technical Information, National Research Council Canada. And is re-published here with their permission.

10 Interview with Pat Langford, Department of Trade and Industry, London, UK, 13 April, 1999.

11 Interview with Pat Langford, Department of Trade and Industry, London, UK, 23 September, 1999.

12 E-citizen e-business e-government 14 02 2000, Consultation paper from Central IT Unit, Information Age Champions HYPERLINK "http://www.iagchampions.gov.uk"

13 IBID p.3 http://www.iagchampions.gov.uk

14 Canada-Mexico Trade Action Plan statistics, Department of Foreign Affairs and International Trade, Government of Canada, 1998.

15 Fast Forward: Accelerating Canada's Leadership in the Internet Economy, Report of the Canadian E-Business Opportunities Roundtable, Boston Consulting Group (Canada), January, 2000.

16 Note: The following section is part of a paper written by the author entitled: Knowledge Managemennt: An Evolving Discipline, February 2000, pp 23-25. It was prepared for, and published by, Canada Institute for Scientific and Technical Information, National Research Council Canada. And is re-published here with their permission.

17 *Knowledge Management in the Treasury Board Secretariat and the Federal Knowledge Landscape,* Dawn Nicholson-O'Brien, Executive Director, Corporate Renewal and Knowledge Management Office, April, 1999, p.1.

18 Canada Health Infoway: Paths to Better Health, Final Report of the Advisory Council on Health Infostructure, March, 1999, Executive Summary HYPERLINK "www.hc-sc.gc.ca/ohih-bsi/achis/fin-rpt_e.html" Press Releases, March 16, 00, Institute On Governance (IOG), Ottawa, Canada HYPERLINK "http://www.iog.ca"

19 For further details on developments in the US see HYPERLINK "http://www.epic.org" OECD Communications Outlook 1999.

20 More recent data from International Data Corporation (IDC), Statistics Canada and the U.S. census Bureau, as reported in the Globe and Mail (Jan. 28, 2000) suggests Canada now leads the U.S. in percentage of Internet users by 40% to 32%.

21 National Partnership for Reinventing Government, A Brief History, John Kamensky, January 1999 (NPR web-site: http://www.npr.gov)

22 As cited in Telegeography 1999, Greg Staple, Editor, Washington, D.C., November 1998.

23 The National Information Infrastructure: Agenda for Action, Executive Summary, September 15, 1993.

24 Network Wizards Internet host counts – www.nw.com/host-count-history. Government Information Technology Services (GITS) Working Group, Accomplishments Report, June 1996.

25 Further information on the Government Services Agency's intergovernmental solutions policies and applications can be found at: http://policyworks.gov/intergov).

26 Digital 21 Hong Kong Special Administrative Region: Information Technology Strategy, November, 1998, Information Technology and Broadcasting Bureau, Government of Hong Kong, SAR at http://www.info.gov.hk/itbb

27 IBID, see preface.

28 Mr. Alan Siu of the Information Technology and Broadcast Bureau in a September 28 1999 interview.

29 See Malaysia, 1996.

30 Mahathir Mohamad, 1998.

31 Multimedia Development Corporation (MDC) [on-line], HYPERLINK "http://www.mdc.com.my/msc.index" accessed: October 25, 1999.

32 New Straits Times, 1999.

33 Mahathir Mohamad, 1998.

34 Multimedia Development Corporation (MDC) [on-line], HYPERLINK "http://www.mdc.com.my/msc/frame/envi.html" accessed October 27, 1999.

35 Global Telekom Business, 1999.

36 Moggie, 1998.

37 Steven Clift, Speech delivered to Integrating Government with New Technologies, December 13, 1999, Ottawa Canada.

38 Andrew Sahpiro, *The Contril Revolution,* Perseus Publications, USA 1999, p.9.

38 Ibid p.12

39 The Democracy On-line Newswire e-mail announcement list covers the topics covered in this article. Send a message to listserv@tc.umn.edu. In the body of the message, write subscribe do-wire Your Name (Place). Democracies On-line is a new initiative promoting development and sustainability of on-line civic participation and democracy efforts around the world through experience, outreach, and education. For more information, see http://www.e-democracy.org/do.

ELECTRONIC GOVERNANCE AND ELECTRONIC DEMOCRACY:

LIVING AND WORKING IN THE WIRED WORLD

Electronic Governance And Electronic Democracy: Living And Working In The Wired World presents the results of an international study which was carried out by Professor Thomas B Riley, during the period 1998-1999, to explore the experiences of a selected number of countries world-wide, in the conceptualisation, development and deployment of the new and emerging concept of Electronic Governance (eGovernance) in the area of socio-economic development of the countries. The publication succinctly underscores the role that Electronic Governance as both a process and a tool can provide a means of using the new information and communication technologies (ICTs): (i) to deliver services by government to the public; (ii) to change and improve the efficient methods of administration within and between governments themselves; and (iii) to enable empowerment by governments to increasingly involve citizens, to varying degrees, in the democratic process of government. The publication provides an analytical exposition of the practices deployed by individual countries and governments under study, assesses the critical success factors prevailing, with the objective of delineating and articulating 'best practices' in various contexts. The first part of the publication deals with mechanisms that different governments are using to develop electronic governance initiatives. Countries under the universe of discourse of the book are the United Kingdom, Canada, the United States, Hong Kong and Malaysia. This section follows this on privacy, which shows that the massive amount of data collection, sharing, amassing and usage by the private sector represents a fundamental threat to the personal information of individuals who go online. The conclusion is that there is a need for International Privacy as a Human Right Convention to protect citizens in the wired world. The final section of the publication analyses the state of electronic democracy online, the directions electronic democracy is taking, where governments stand in these developments, and how online activism is changing the shape of democracy as we have traditionally known it since conception in the annals of history.

Commonwealth Secretariat
Information Technology & Globalisation Series

SFI Publishing
Information Technology & Globalisation Series

ISBN 978-1-84859-736-5
9 781848 597365

ISBN: 0-85092-659-9 (Commonwealth Secretariat)
0-901127-15-X (SFI Publishing)