WORLD SUMMIT ON THE INFORMATION SOCIETY

A Report on Best Practice ICT Policy and initiatives observed at the Summit Geneva – December 11th – 13th and later Australian meetings

(As requested by the Associate Minister of Communications, The Honourable Mr Cunliffe)

Draft as at 7th February 2004

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February 2004

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Report on WSIS for ICT Policy Development in NZ

This report is prepared by a small group of New Zealanders that attended WSIS in Geneva in December 2003. It is based on the experiences they saw as best practice and applicable to New Zealand.
This report is structured into the following 3 basic areas as requested by the Minister.

1. Economic efficiency and development with ICT
2. Social/community development, digital divide, digital opportunities
3. Safety, Trust and Security.

They are preceded by some general comments that display the cross cutting nature of ICTs to deliver effective change in many aspects of society

The underlying theme this report is the gaining of accelerated diffusion of ICT throughout NZ to effect transformational change.
Many indicators are showing that New Zealand is not at international best practice in diffusion of ICTs and anecdotal evidence from WSIS and other international contacts also confirms this.

Introduction

The crosscutting themes from the whole WSIS process were

1. Social appropriation of the technology for transformational change
2. The role of local e content in driving effective use

These themes support the thrust of ICTs being a key issue for reaching the Millennium Development Goals and as an enabler for transformational change in social, economic and political development.

Themes and general comments

The following is a brief statement of the current issues and thinking around the themes shown below.

Access

Many industrialised countries are evaluating their access driven ICT initiatives and reviewing their policies. Initial findings are indicating that the programs have not delivered the benefits that were expected.

There is a growing understanding that providing access alone will not realise the full potential of ICTs. To many underdeveloped countries, the issue of access is still critical, but even they are asking, “Access to what”.

Effective Use

There is a growing awareness of policies and initiatives that promote Effective Use of ICT. This has been expounded by one of the leading Community Informatics researchers, Professor Michael Gurstein from the New Jersey Institute of Technology. He is Chair of the Community Informatics Research Network and is active in the Global Community Networking Partnership.
His Paper is available at
http://www.firstmonday.dk/issues/issue8_12/gurstein/index.html
In this paper he states that

> "Effective Use" of ICTs might be defined as:
>
> *The capacity and opportunity to successfully integrate ICTs into the accomplishment of self or collaboratively identified goals.*

The emphasis on promoting widespread access to this new opportunity for sales and service delivery belies of course, the equally if not more significant opportunities that are presented for local use of ICTs for knowledge production and management. These latter would have the potentially critical outcome of local empowerment in the face of increasingly centralized forces towards globalization and concentration of wealth, power and privilege.

ICTs when used effectively provide significant resources/tools for transforming one's condition — economic, social, political, cultural — whether through obtaining the means for effective use of information and communications capabilities and tools; reaching new markets for small and micro-enterprises; providing the means to bring together dispersed linguistic communities; giving amplification and global voice to unheard minorities (or majorities); for facilitating informed participation in remotely managed political and other decisions; and, for obtaining the interactive services (if remotely) of skilled practitioners

Social appropriation of technology for transformational change

Widespread diffusion of ICTs is increasingly seen as an indicator of a successful and modern country well poised to be competitive in the knowledge economy. ICTs are widely seen as an enabler of innovation and creativity in social, economic and political sectors.

Many countries are now developing policies promoting transformational change in the process of governance, education, health and economic and social development. There is wide acknowledgement of the benefits of a grass roots approach, from the bottom up rather than a top down process. ICTs are seen as enabling grass roots networking and free exchange of information and are changing the way knowledge is gained and used.

Local Content

There is an acknowledged content (and Cultural) gap that is limiting the full appropriation of ICTs, having social and economic impacts. Production of local content can only been done in the context of that community and is not undertaken by mainstream media today. ICTs offer an excellent tool for low cost, locally relevant information to be published to promote community engagement and lifetime learning. In many ways, appropriate content answers the question "access to what" and with out it, ICTs will just become another one-way consumer channel, instead of fostering transformational change.

This is a human capacity issue and is not about teaching how to use a mouse, Word or email. It is about inspiring people to publish what they are passionate about and to interact with others about that. Our educational processes need to change to raise awareness of the value of this medium and the models of learning and development that it promotes.

Local content is naturally linked to culture and heritage and many developed countries have national e content strategies linked to education, culture and the arts. Many see the importance of generating local content as a balance to the global mass media model.

Good content, good access and well-developed ICT skills are essential as the basis for economic development. As a result People become:

- Literate
- Confident
- Competitive
- Mutually strengthened
- Prepared to work/share expertise for regional growth

Literate people will:

- Develop the new skill base required for the future work environment;
- Be able to bid for work nationally and internationally
- Contribute to making local industry more efficient
- Strengthen Local relationships

Local media (local publishing of local content) is becoming a key issue for raising awareness of, and debate on, local issues and is seen as an essential element in a modern democracy

ICT in the Third Sector

Many countries are reporting underutilisation of ICTs in the Voluntary (NGO/NFP) sector and in the wider community. Again, this is not about access, it is about effective use.
In many countries, these organizations represent between 5-20% of the GDP. The potential is to develop "Productivity gains" by these organizations, which will have an economic payback, just as they do for industry and government.

Civil Society's underutilisation of ICTs is also a risk for the community's greater involvement in the democratic process. Communities that have poor access and skills in the Information Society will not be able to effectively consult and engage with the

highly skilled and information rich government agencies (and in fact may feel intimidated by them).
In the process of WSIS, it was very effectively demonstrated that resource poor Civil Society was able to influence proceedings just as effectively as the resource rich Government and Industry groups, through the effective use of ICTs.

Generally, ICTs are seen as a good tool to accelerate social innovation agendas.

E Government

Governments that are considered as Information Society leaders today have a single body responsible for E Government initiatives with high-level and visible commitment (at PM level).
Examples include the Office of the e Envoy in the UK and the National Office of the Information Economy in Australia. As ICTs are a basic enabling technology, a "whole of government approach" is much more effective in obtaining rapid and widespread results.

Many countries are using the technology to reform the process of government and to stimulate a greater participation in the democratic process.

The Office of the e-Envoy is now being restructured into a permanent office. To quote the press release: -

"The appointment of a Head of e-Government represents an evolution in the e-envoy role which will build on the achievements of the last four years. The Head of e-Government will play a pivotal role in supporting the Prime Minister's vision for public service reform"

Like the OeE, the office will be based in the Cabinet Office and its head will report to Cabinet Secretary Sir Andrew Turnbull and Minister for the Cabinet Office Douglas Alexander. The office's head will be responsible for driving a government-wide information strategy **to support public sector reform**, defining the architecture and standards of common government infrastructure and services, and providing leadership for the e-government community.

Many lesser-developed countries are introducing policies to use ICTs to increase the transparency and participation in government and to reduce corruption.

Partnerships

An underpinning principle of WSIS is that partnerships between govt, business and the community are essential as the task is too big (and too important) for any one player to go it alone. WSIS was the first World Summit to involve Industry and Civil Society as partners from the beginning. Partnerships at the international, national, regional and local levels were promoted as an essential component of the Information Society
There are some very good examples of national and international partnerships with the likes of IBM, Cisco, Yahoo, British Telecom, SouthWestern Bell, Telstra etc to draw

on and a number of overseas government programs promote the development of local and regional partnerships.

The role of Local Government in development of the Information Society

Obviously, Local Authorities will be key during the development of the Information Society.
In the UK and Canada, central government has given very high profile attention to innovation, the knowledge economy and the underpinning technology in national policies and strategies. This has flowed down into many local authorities that are developing supporting policies and initiatives.
It was particularly telling that there was no New Zealand city or local authority attending the World Forum of Cities and Local Authorities on the Information Society in Lyon. This forum represented some of the leading cities and thinking on the role of local government in the Information Society and was timed to deliver a Local Authority view to WSIS.

Research

A new field of academic research called Community Informatics is developing to understand and research Community use of ICTs. New Zealand has some leading work in this area, but it is add hoc and not well co-ordinated.
Research is key for understanding the benefits of ICTs and greater research funding and co-ordination can only help New Zealand realise the full potential of this new technology.

Best Practice Policies and initiatives

The following is an introduction to best practice policy development and national initiatives to promote the development of fair and equitable Information Societies. They are grouped into the requested sections of Economic Efficiency and Development, Social and Community Development and Trust and Security

Economic efficiency and development
New Zealand seemed to be generally well placed in policy and initiatives in this area. The following comments apply to areas that the authors feel New Zealand is not at best practice.

Broadband
Our current broadband diffusion is not as good as many developed countries and our goals are not as ambitious as many of our peers. Best practice is networks that deliver 10 Mb to the home, 100 Mb to SMEs and small public buildings and 1 Gb to all other organizations. New Zealand is also late to implement a Next Generation Internet network. Countries that do not have wide diffusion of broadband are increasingly seen as uncompetitive and technologically undeveloped.

Countries with greater broadband penetration, but similar technological development as New Zealand, have either promoted a stronger field of competition or the

government has taken a stronger intervention to promote the development of “true” low cost broadband networks. The two examples most often cited are Korea and Canada to demonstrate the differing approaches. These case studies are well known and will not be further elaborated on in this report.
A lesser-known aspect of the Canadian Policy is their Smart Communities broadband demonstration projects. This policy specifically set out to create twelve model communities across Canada that would demonstrate the potential of broadband to transform the community. Outcomes in economic, social and political development were encouraged to give as wide as possible view of potential effective uses. This approach has delivered some outstanding whole of community initiatives.

Export Potential

In relative terms, New Zealand is very advanced in its use of ICTs across abroad spectrum of activity. WSIS has raised many issues for developing countries wishing to develop their Information Society and New Zealand could play a more pro-active role in helping them, especially in those countries where we have an established foreign aid presence.
Canada is a good example of using ICT as a key to export development activities and has many programs throughout the developing world, even with our close neighbours in Asia-Pacific. As an example of their success, they have placed over 1265 ICT skilled youth in 100 developing countries to help accelerate the adoption of ICTs. Canada works actively in the G8DOT task force (for ICT enabled Development) and the Bellanet program (which promotes Online Communities, Knowledge Sharing and Open Development.)

WSIS has highlighted many issues in the Pacific Islands and it may be timely for NZ to either take a strong leadership role in facilitating ICT development in the region, or to join in regional efforts to address the special problems of Small Island Developing states (SIDS). As shown in other parts of this paper, we do have the expertise and development projects from the World Bank, UNDP and the Digital Solidarity Fund have relatively large sums of money available for ICT Development projects.

NGOs and NFPs

Although NGOs and NFP’s in New Zealand do not contribute directly to commercial economic activity, they do have a significant impact on the countries GDP. As in most countries, they are underutilising ICTs in comparison with government and similar sized businesses.

Examples of countries that are facilitating greater use of ICT by NGO’s and NFP’s include the UK, Canada and the USA.

Programs are addressing the issues of expensive commercial rates for Business Analysts, IT consultants and technical support staff by providing suitably trained NGO specialists to offer support in developing ICT strategies and ongoing technical support are deployed in these countries today.

The UK Government's Home Office Cross Cutting Review (CCR) of the Role of the Voluntary Community Sector (VCS) in Service Delivery explains "VCS infrastructure

provides support for organisational capacity, a voice for Voluntary Community Organisations and access to representation and policy making".
It recommends "Government and the VCS should develop a coherent shared strategy to underpin capacity in the sector". It requires the Active Community Unit (ACU) to lead on the development and implementation of a strategy "to achieve a sustainable baseline of infrastructure support at local level, regionally and nationally".

Social/community development, Digital Divide, Digital Opportunities

The BIG message from WSIS is social appropriation of the technology for transformational change. Previous focus in New Zealand and many other countries has been mainly on economic development, govt service delivery and infrastructure.

Many countries are aggressively tackling the issues of human and social capacity building, lifetime learning, local content and social entrepreneurship. They aim to unleash the creative juices of society. The Canadian example of using Industry Canada to address the technology issues and the Human Development Commission to address the human capacity development issues seems to have had the most impact throughout the world. In fact, the Information Highway has been the core of all Canadian government agency policy since the mid 1990's.

Content

Canada is highly regarded as a leader in content innovation and production. The government policies have emphasised and supported the development of Canadian e content for several years and it is beginning to pay off. Their belief is that "in the emerging digitally networked society, the creative arts and cultural institutions in general are mutating by forming a constellation of productive relationships with science and technology research systems, industry, humanistic and social science scholarship"
It is important to Canadians to defend their culture from dominance by the US and they have adopted specific strategies and initiatives at the national, regional and local levels to foster and develop local content.
New Zealand, by comparison, lacks a clear vision of the importance of local content, a strategy to change this and actions through funding and co-ordination to effect change.

It should be acknowledged that New Zealand does lead the way in local content development in Education and Maori culture and there are many community portals providing basic community information, but mostly, these activities are produced by some form of central authority in the old broadcast or top down mentality and do not capitalise on the full potential of the Internet for self publishing or interactivity and cross fertilisation.
It became clear in the WSIS proceedings, that the development of local content is somewhat dependant on the availability and take-up of broadband. Australia, with approx 3% penetration of broadband to homes, specifically mentions this as a limiting factor. Research in Korea was also presented showing that as the penetration of broadband rises, so does the number of local portals and other forms of local content.

The UK, Canada and many of the Francophile countries actively support community development of content in the form of awareness raising, promoting the development of formal and informal training, support for video and editing equipment, servers for storage etc.
A good local model is the New Zealand Living Heritage Project, which was recognised at the WSIS e content awards ceremony as a leading initiative. Over 800 entries from 130 countries were judged and New Zealand received two finalist awards.
It should be noted that the Living Heritage program is struggling to find a sponsor to develop it into a mainstream national program.

In the Global Forum for Indigenous People in the Information Society meeting run in parallel with WSIS, NZ was recognised as being in the forefront in terms of generating indigenous content. A lot of indigenous peoples were quite keen to work with people in NZ in terms of the work that we are doing in Maori education and Maori language revitalisation
This may represent an export opportunity for NZ and should be investigated as part of a policy of ICT directed Aid to our Pacific Neighbours.

Access

Many policies have focussed on access in the past and have addressed the digital divide through Community Technology Centres (Telecentres) and more latterly, broadband for all.
These single focus programs are now being reassessed as they have "failed" to deliver the full potential of ICTs. More recent policies that have emerged take a more holistic view and promote concepts such as Lifelong Learning, Community Building from the ground up, Social capacity building as well as the more traditional Telemedicine, e Government and remote Education.

Connectivity will not by itself, bridge the Digital Divide. The effective use of ICT will rely, in part, on the presence of trained personnel who have the capacity to assist others in the community to realize the benefits of ICT (as distinct from teaching how to use a mouse and type a word document)

Canada seems to provide the best examples through the policies of their Human Resource Commission; however, many less developed nations are learning the lesions of the past approaches and are aggressively pursuing holistic polices. The authors saw many such initiatives and further study would be needed to evaluate those that may be appropriate for New Zealand.
It should be noted that in relative terms, New Zealand has spent little on access-focussed programs to date.

This is not to down play the need for community access centres, especially in areas where ICT take up is low. Centres based in Marae, Community Centres, schools, hospitals and libraries are important. Access should be provided as a matter of course wherever the community regularly meets.

Funding

Many countries are now considering policies that take a longer-term view on funding, sustainability, partnerships and capacity building.
Canada seems to lead in this area with funding offered for 3 years with a requirement of 50% funding from the community (often as "in kind" contributions, but also through developing partnerships with business and local authorities).

New Zealand's grant providers and sponsors seem to take a limited term view of supporting ICT projects and insist on "once off" funding only, usually for equipment costs, implying that the project should either satisfy all its goals in that term, or become self funding thereafter. These approaches may need reconsideration in the light of best practice community building projects from overseas.

Funding for national programs is also essential. In New Zealand, many local initiatives have more than adequately demonstrated effectiveness in fostering the effective use of ICTs, but funding to turn them into national programs is not available.

A specific example would be the Computers in Homes Pilots. These pilots have proven multiple outcomes in education, employment, literacy and community building and engagement, but support to develop a national program has been almost impossible to obtain. One issue is that each government agency can see benefits, but cannot fully fund the program. A whole of government approach to supporting this capacity development for the Knowledge Economy would mirror similar approaches seen overseas.

Human Capacity Development and Lifetime Learning

The value of education is increasing in the Information Society. A presentation at WSIS showed that a tertiary education has appreciated in value by 20% in the last 10 years. At the same time, educational budgets are being cut and industry training is rapidly reducing as more than 60% of workers are on contract and responsible for their own training.

Many countries are developing Lifetime Learning programs to foster continuing education in e literacy and knowledge based skills as a way to develop skill sets for workers displaced from the older resource based industries. Many of these workers are in rural communities and often have poor literacy skills. They cannot pay for advanced education and have often had a bad educational experience in their youth. ICT has been proven to play a valuable role in re-skilling such workers into new employment opportunities. This retraining is often based on "peer to peer" learning and the development of skills to engage with e-content, with other cyber workers and to develop understanding of the value of peer groups for continuing development and growth. ICT capacity development is not only about learning to drive PC's and how to email, but also about new paradigms of learning and effective use of the technology.

Safety, Trust and Security

It seems that many governments are committed to bringing their citizens ”online” without adequately preparing them to be good e-citizens. A part of encouraging this online citizenship must be fostering safe and responsible use. This is usually the domain of public education programs like road safety, alcohol abuse etc.

New Zealand is probably the leading light in international terms with its Netsafe program (for example, receiving the 2002 International law Enforcement Cyber crime Award for best practice in prevention of cyber crime). Netsafe is the only known agency that brings safety and security under one umbrella – a unique holistic approach.
Of course, activities to date are not reaching all e citizens, or especially potential e citizens, many of whom do not trust the Internet due to adverse and high profile mass media “horror stories”. Public awareness programs should at least provide a balanced view to the mass media approach and promote available resources, best practice and special “Safety Zones” for those concerned about these issues.

OECD mirrors this approach somewhat in their policy on fostering a culture of security. Of course, they go further in issues of technical design at national, industry and local levels. Details are available at
http://webdomino1.oecd.org/COMNET/STI/IccpSecu.nsf?OpenDatabase
The program focuses on the principles of awareness, responsibility, response, ethics, democracy, risk assessment, security design and implementation, security management and reassessment and policies that support these principles.

Considering New Zealand’s leading activities in this area, support to promote our approach in overseas countries, especially our pacific neighbours, perhaps linked to aid provision, could raise interesting opportunities for generating export activities.

Conclusion

NZ has an excellent opportunity to develop some leading “Effective Use” ICT policies to unleash the innovation of the whole of New Zealand’s society.

There are many examples of New Zealand developing world-class ICT initiatives, however there is a sense that we do not have the vision that other countries have developed. Many of the initiatives are not “joined up” or deployed throughout society. In this way, New Zealand seems to be falling behind many countries.

Recommendations

The authors of this report recommend the development of policies and initiatives that address: -

1. Support of awareness raising and training in the effective use of ICTs as well as promoting universal low cost access for New Zealand to gain rapid diffusion of this technology for transformational change.

2. Digital Divide and Digital Opportunity policies being replaced with Connecting Communities initiatives providing long term funding and support for human and social capital building throughout New Zealand
3. Support and nurturing of partnerships between Government, Industry and Communities that will bring inclusiveness to the Information Society and promote rapid deployment and effective use of ICTs
4. A whole of government approach, with a single high level responsible body fostering common visions and goals to significantly help the rapid diffusion of ICTs throughout all New Zealand
5. Development of strategies and better co-ordination in the production of e-content to foster New Zealand's unique image, culture and export potential.
6. Promote the development of the voluntary sector's ICTs capacity for the economic and social development of New Zealand.
7. Support and develop the export potential of our e learning and indigenous culture capabilities (especially linked to aid programs to our Pacific neighbours) to achieve valuable export earnings in the new Knowledge Economy.