Introduction

I am the founder, the kaumatua (elder), and a life member of Te Whanau Ipurangi (The New Zealand Maori Internet Society). I am also a member of the Aotearoa Maori Internet Organisation. Our members have been at the forefront of pioneering and developing local indigenous Maori content in Cyberspace for the last nine or ten years.

http://www.nzmis.org.nz
http://www.amio.maori.nz

Aotearoa New Zealand is a small country of about 3.8 million people in the South West Pacific. The indigenous Maori people comprise about 15% of the population. Other Polynesians and Pacific peoples comprise a further 7%. We are a relatively well developed country although the indigenous people are still disadvantaged compared to the general population. However, compared to most of the developing world we are very well off.

We have a mature and very well developed telecommunications network (there are 2.5 million cellular phone connections). Aotearoa New Zealand has one of the highest rates of Internet access in the world. Most of the country is able to access by dialup, and within the next two to three years most should have access to broadband, although the cost of broadband remains prohibitive.


At the beginning of 1995 I was virtually the only Maori person in Cyberspace. In the short time since then, just ten years, Maori access to the Internet has exploded. 72% of Maori now have access, an increase of 11% in the last year. We are not very far behind the overall figure for internet access in Aotearoa New Zealand (78%, up 10% in the last year).

Our indigenous Maori experience in Cyberspace may contain lessons for others.
What Content do Indigenous Maori People Access?

Just over two years ago, at the WSIS Asia Pacific Regional Pre-Conference in Tokyo Japan, I said that we should acknowledge that the main use of this technology will be for entertainment, and that it should be called IC&ET, not ICT. I said then that I thought the people wanted access to entertainment; to music, to movies, and to sport. 

Just two years further on that prediction has been proven correct. The latest Internet usage survey shows that the most popular content for Maori people is music, online games, radio and television, and movies; in that order. Text based content comes last.

Music

The survey shows that first choice for Maori people is to access music. Given the pervasiveness of the global western culture most of that music is from the global popular culture. A small amount of Maori music is available on the Net and it is readily downloaded when available. 
http://www.maorimusic.com/catalog/default.php

Games

Next in popularity are collective and individual online games. At the moment none of that content is in Te Reo Maori, the Maori language.

Television and Radio

Television and radio are close behind. This is a mixture of streamed broadcasts and archived audio/visual and audio clips.

For the last fourteen months we have had a Government funded Maori Television Service, set up after years of Maori activism and negotiation to protect and promote Te Reo Maori. Sadly the funding is not yet sufficient to allow the only Maori language TV station to stream over the Internet. 
http://www.maoritelevision.com

The government owned public television broadcaster, Television New Zealand, has a 15 minute Maori language news programme called Te Karere (The Herald), which is archived online. It is becoming more popular as more Maori people get broadband access. 
http://xtra.co.nz/streaming/0,,11437,00.html
We have a network of tribal Maori radio stations, also funded by Government to protect and promote Te Reo Maori. Most of those stations broadcast in both English and Te Reo Maori and are streamed over the Internet (with Government funding).
http://www.irirangi.net.

Two of them, Radio Waatea and Ruia Mai, are mainly Te Reo Maori stations.
http://www.waatea603am.co.nz
http://www.ruia mai.co.nz

Movies

Next most popular are downloaded movies. Although we do have a very small Maori film industry almost all of this downloaded content is the Hollywood version.

Textual Content

Textual content comes last in popularity behind the rest, and most of that popular content is in the English language.

There are a few bilingual websites, or websites with bilingual content, and these too are mostly government funded. Given that they are mostly textual and mostly about government matters they are not very popular.
http://www.tpk.govt.nz/default.asp
http://www.tetaurawhiri.govt.nz

One of them however is the Ministry of Education’s main online resource repository and it is very popular with schools and other educational bodies. It rates highly with Maori for that reason.
http://www.tki.org.nz

There are also a growing number of tribal websites with varying amounts of bilingual content. These are all self funded.

The Issues

The Cost of Bilingual or Multilingual Content

We are finding that the cost of producing bilingual content is prohibitive, without government or corporate assistance.

In the early days we enthusiastically wrote our own code, developed our own graphics, and maintained our own websites. It was all relatively simple then. But since then the
technology has become more sophisticated, enabling of course more sophisticated presentation of content. The result is good business for website development companies, but there are fewer amateur webmasters.

In my own technology company we are presently scoping a major bilingual project to build a large online database of cultural and linguistic content in audio, audio/visual and textual formats. However it will eventually cost us at least a million NZ dollars and we will have to charge subscription fees to recoup our investment, unless we can attract government and corporate sponsorship. The project is at least two years away from being launched.

**Spoken Cultures / Spoken Content**

Maori people have shown us that they want access to the spoken language, to music, and to the visual presentation of content.

While a primary and necessary mission of UNESCO is to foster literacy throughout the world, we need to acknowledge that most cultures are not literate cultures, even after their peoples become literate. For most of us the written word is a valuable adjunct to our lives, not central to it.

Most of our cultures are carried in storytelling, music, song and dance. Music is just as important as language, and the primary form of language is the spoken language. That is so in my Maori culture, and I understand it is so throughout Africa.

Maori people have shown that the content they want is that which is only accessible via broadband. That message is loud and clear.

**Broadband Technology for All**

Telecommunications companies in many developed countries tend to be focused on their existing terrestrial copper wire infrastructure to deliver broadband solutions (ADSL), not because it is the best solution but because it is already there, because there has been a huge investment in copper wire over the last 75 to 100 years, and because that is what their engineers know.

For the rest of the world including Oceania and Africa I would think that satellite and radio are the best investment options to reach the most people. Satellite also offers the opportunity to build transnational networks and ISPs, thus spreading and reducing the capital cost to poorer nations such as the island nations of the Pacific and the nations of Africa, although for various reasons it remains prohibitively expensive.

We need now to plan ahead to allow people to interact with the technology in ways they prefer. Given that globally most people prefer the spoken word to the written, we should be developing technologies to enable that spoken interactivity in Cyberspace; such as voice recognition and voice translation perhaps.
That will present a real challenge to multilingualism in Cyberspace. The stuff of science fiction; but science fiction does have a habit of becoming reality. Until very recently Cyberspace itself was pure science fiction.

The Cost of Bandwidth

In Oceania, Africa and elsewhere I know that the cost of a simple dialup internet access is beyond the means of most people, and the cost of broadband is astronomical.

So something must be done to remove the inequalities and inequities of access and cost between the developed and developing nations, and between the rich and the poor. And something must be done to remove the vested interests and inefficiencies that conspire to keep the cost out of reach of most people. I would think that should properly be a major consideration at the UN World Summit on the Information Society in Tunis this coming November.

For I think I have shown that broadband is essential, now not later.

Technology Should Follow Content

The issue I have been leading to is this: the technology should be designed to deliver content to ordinary people in the form that ordinary people prefer, and the form of that content should not be driven by those whose main focus is on the written word.

That means broadband.

Summary

I can summarise my proposition in four questions:

1. What content do people really want?
2. What are the implications for multilingualism?
3. What is the appropriate technology to deliver that content, monolingual and multilingual?
4. How will that technology reach the people?

Biography: Ross Nepia Himona
rhimona@maorinews.com
http://maaori.com/rhimona

Ross’ first 20-year career was as an officer in Ngati Tumatauenga (The Zealand Army). Since 1982 he has been involved in Maori tribal and community development. He owns and manages his own management services and technology companies.

Ross is acknowledged as a pioneer in the adoption of communications technology by Maori. He has served on the Communications Sub-Commission of the New Zealand National Commission of UNESCO, and has advised and worked alongside numerous New Zealand Government agencies on ICT policy and implementation.

He spoke on “Fostering the Creation of Local Contents” at the WSIS Asia Pacific Pre-Conference in Tokyo 13th – 15th January 2003.