

Biculturalism and IT

What does Technology have to do with biculturalism? Surely technology is independent of "culture", bi, multi, or otherwise? However information technology determines the ways in which cultural information is created, accessed, and used, and so the interaction of technology with Māori knowledge is of vital concern to librarians in Aotearoa/ New Zealand.

This month's *Technophile* explores some of the implications of technology for biculturalism, looking at the problems with using Te Reo correctly in a digital environment; with some of the cultural issues in making Māori information available digitally; and with the way in which IT is being used positively to make Māori information available.

The Māori Language Commission promotes the use of the macron, a line over a letter, to show the long vowel sound in Māori. Human beings understand characters, but computers only understand ones and zeros. The ASCII code was developed to enable characters to be translated into ones and zeros but unfortunately the possible 256 characters of the ASCII code did not include macronised vowels. This means that most computers will not normally display the macrons used in Māori, making it difficult to create word-processed documents or web pages that show Te Reo correctly.

What solutions do we have?

- Avoid the issue, either by not distinguishing between long and short vowels, or by using a double vowel to indicate the long vowel, e.g. Maaori.
- Install special fonts that include the macron (usually by appropriating the German umlaut, the double dot over a vowel). There are a number of sources of macronised fonts.
 - Reddfish Intergalactic Software sell a software bundle, Te Kete Pūmanawa Rorohiko, that enables standard PC truetype fonts to be macronised. They also allow a couple of free macronised fonts to be downloaded from their website.

- Navigator Software also provide macronised fonts.
- There is a Garamond Macron font available from the Māori Law Review site.
- WordPerfect includes macronised fonts in its character set.
- Use a 16 bit character set. The ASCII character set uses 8 bits (ones and zeros) to represent characters, limiting it to 256 characters. The developing Unicode standard uses 16 bits, enabling it to represent over 65,000 characters. However the Unicode set is not yet widely used.

On the Web

While the macronised fonts are a feasible solution for print publications, such as *Library Life*, they are only a partial solution for web pages. While many web pages such as those at Ngā Matatiki Rorohiko use macronised fonts, they only appear correctly if the readers have macronised fonts installed on their computer.

Cultural issues

Inevitably, conflicts will arise when a culture that places a high premium on its knowledge, and those who have access to its knowledge – that is, accords them the status of "taonga" and its guardians "kaitiaki".

One example is the Māori Land Court Minute Books. The Land Court is currently completing a consultation round in regard to its creation of an image database of the complete minute books. These books contain a large amount of family material, and a lot of that information needs verification – whether it is genealogical or historical. A main concern that is emerging is that the information may be altered, or will be used without recourse to the people who are the descendants of the subjects in the books. Needless to say, the information may be used to gain title to land on the basis of a genealogical link, which may be incorrect. The Land Court has listened to these concerns and will not provide Internet access to this database.

Even books in the traditional format have been a matter of concern. For instance the Māori language Papatupu minute books, written by court assessors, were the subject of a court injunction preventing their use.

This is an area that requires great sensitivity, trust and humility. Partnerships need to be developed between Māori Library staff and their institutions first. Then tangible partnerships with iwi/hapū/whanau will emerge.

Ngā Matatiki Rorohiko is a collection of Māori internet sites that is intended to be comprehensive. It incorporates Māori clipart and has an up-to-date Māori language version. Resources range from listservs, databases, full-text collections, software, forthcoming events, commercial, arts and research sites. The sites it collects were all intended for the internet.

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A copy of this column, with links to relevant web pages, will be online at <http://www.vuw.ac.nz/~agsmith/technophile/>

References:

- Māori Law Review <http://www.kennett.co.nz/maorilaw/>
Navigator Software <http://navigator.co.nz/>
Ngā Matatiki Rorohiko <http://www.auckland.ac.nz/lbr/maori/maorigate.htm>
Reddfish Intergalactic Software. <http://www.reddfis.co.nz/reddfis/kete.htm>
Unicode <http://www.unicode.org/>