

Cultural sites of the spectrumscape: negotiating global flows in nz radio broadcasting

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Abstract:

The infrastructure of broadcast media and many communications systems is determined by the way the radio spectrum is managed, and frequencies on which to transmit are allocated. Radio spectrum is controlled by layers of national and international legislation and agreements, so that the borderless flow of radio waves can be managed efficiently between States. In New Zealand access to spectrum is gained mostly through pseudo-property rights sold at auction, following an argument that spectrum is most efficiently used if treated as private property. The removal of restrictions on foreign ownership of spectrum rights in 1991 means that New Zealand's frequency bands are now part of an international spectrum market, figuring our radio waves as expensive iterations of international financescapes and mediascapes. However exposure to this market has been found to limit the range of media content, and a variety of other allocation processes have been adopted to augment auctions. This paper argues that radio waves form a 'spectrumscape' that is a fluid site of tension between local cultural interests and global flows. It outlines the role of radio spectrum in shaping New Zealand's media and communications environment, and relationships between local and global spectrumscapes. It will focus on some ways in which local cultural concerns have manifest in the radio spectrum, through the examples of the Maori claims to spectrum through the Waitangi Tribunal, the reserving of spectrum bands for non-commercial use, and the controversial reframing of Kiwi FM.

Introduction:

Allocation of frequencies within the radio spectrum broadly determines the structure of broadcasting systems, through factors like the level of international investment in frequency rights, and commitments to local cultural representation. This paper will examine the relationship between global interests and local concerns in relation to the regulation of radio spectrum in New Zealand. Radio spectrum is controlled by layers of national and international legislation and agreements, so that the borderless flow of radio waves can be managed efficiently between States, with relative degrees of openness and containment. This paper will contrast an initially relatively closed system of spectrum allocation in New Zealand, with the more open system that emerged from the deregulation of the New Zealand broadcasting industry in 1989. The post deregulation openness revealed the location of New Zealand's radio spectrum in global media-, ideo- and finance- scapes. This suggests that it is appropriate to consider radio spectrum itself in terms of a 'scape,' in the sense proposed by Arjun Appadurai, as a dimension of global cultural flows. While governments have a degree of control over the allocation of frequencies within their own States, radio waves are essentially borderless carriers of information. Their propagation needs to be carefully managed to avoid interference, both technical and cultural, in the territory of other States. Exposure to the global flows of the spectrum market has been found to limit the cultural range of media content in New Zealand, and a variety of measures have been employed to augment the commercial orientation of spectrum allocation by auction. This paper will examine three of these: the Treaty of Waitangi claims to radio spectrum, the delineation of specifically public service spectrum bands, and the controversy of frequency allocation for Kiwi fm. The paper reframes a history of New Zealand broadcasting through the lens of radio spectrum allocation.

1. Background on Radio Spectrum and New Zealand policy

For much of the twentieth century radio spectrum management in New Zealand supported a very internally focused broadcasting structure. This began with The Wireless Telegraphy Act of 1903, apparently the first legislation for control of radio waves in the world. The Act prohibited any party from establishing wireless communications without the consent of the colonial Governor in Council. Effectively the Act turned the space in which radio transmissions existed into state territory, attempting to seal it off as though it were a tangible space like land. This control was loosened a little in 1921, when licenses were issued for radio broadcasting, however the government realised the potential power of broadcasting, and by 1935 all but a few

stations had been nationalized, forming a two-tiered public broadcasting system - a locally oriented, commercial network, and a national non-commercial network. A few other very local stations survived without being permitted to carry advertising.

Strict controls were maintained over transmission licensing, and initially over reception licenses, closing national spectrum borders against inappropriate outside influence. Content was restricted in many senses - presenter scripts were monitored for appropriateness, and broadcasts could be cancelled if they were deemed unacceptable. News bulletins were restricted – from 1937 until 1962, all so-called ‘news’ was in fact generated by the government’s Official News Service. International figures were routinely welcomed onto New Zealand airwaves, but only for the benign cultural pleasures of popular song, and bourgeois erudition. Other more controversial figures represented the kind of international influence the broadcasting authorities were anxious to keep beyond the national barricades.

State control over New Zealand broadcasting began to dissolve in the 1960s, when the pirate transmissions of Radio Hauraki forced the acceptance of private broadcasting. However, until 1989, the licenses that allowed access to the radio spectrum were still centrally managed, containing the New Zealand broadcast spectrum as a locally oriented entity.

2. Global dimensions of radio spectrum

The location of radio waves in global flows was evident from the beginning however, as the 1903 wireless telegraphy act was signed by the Governor of New Zealand on behalf of the British King, Edward the Seventh. New Zealand’s radio spectrum effectively belonged to the British crown. It was already part of the global flows of the Commonwealth, and celebrated for its ability to connect distant New Zealand with the Mother Country. In reality, the relative containment of New Zealand’s spectrum was as much an accident of geography as a conscious policy.

The invention of shortwave transmission meant that broadcasts and communications could instantaneously bridge the 20,000 kms to Britain, without the telegraphy cables that actually emphasized the extensive and unpredictable territory between New Zealand and ‘Home’. Shortwave broadcasts from Europe were received and rebroadcast, and the BBC shortwave Empire Service was received as the official source of world news and broadcasting style.

New Zealand began its own shortwave service in 1947, two months before becoming an autonomous State. The country expanded out into the Pacific via shortwave, and across to the eastern states of Australia, even while its

own mountainous topography prevented full radio coverage of the country itself. For several years, the West Coast of the South Island was effectively a radio branch of Australia, as the Southern Alps blocked radio waves from New Zealand's East Coast, while the salty expanse of the Tasman Sea brought Australian waves across at night. From the 1960s onwards the national and global spectrum became ever more complex, with microwave links, satellites and local wireless networks drawing connections around the globe.

Until 1989 however, the allocation, ownership, and content of New Zealand's radio spectrum was ultimately under the control of the New Zealand government and its agencies, operating within the bounds agreed by the International Telecommunications Union. In 1989 however, New Zealand's broadcasting industry and spectrum allocation processes were restructured, in the midst of a deregulatory rupture that exposed New Zealand to the flows of international capital, and began the interpenetration of electromagnetic space by corporate ownership. Ultimate control over radio spectrum still rests with the government, but in theory the exact configuration of users within New Zealand's spectrum may be shaped by the market.

The establishment of spectrum auctions, and later removal of restrictions on foreign ownership of spectrum rights and management licenses, means that New Zealand's frequency bands are now part of an international spectrum market. Where previously the state had attempted to mitigate the impact of global flows, the deregulation opened New Zealand's spectrum up to the global media-, ideo- and financescapes with little regulatory protection. The relationships between global flows and local cultures in this environment are of course complex, and I'd like now to discuss three instances where these global-local relationships in the spectrum have been negotiated in particularly interesting ways. These are issues that seem to have been more pertinent in relation to broadcast radio frequencies than any other aspect of the New Zealand spectrum.

3. Local issues: Treaty of Waitangi claims

The earliest of these issues came about as a direct response to the deregulation of broadcasting, and the reframing of radio spectrum as a saleable object. It is framed by the Waitangi Tribunal Act of 1975, which established a reparations process for breaches of the Treaty of Waitangi – the document that established a partnership between Maori Iwi and the British Crown. Because of this, Maori were able to take advantage of legal processes to assert the significance of radio spectrum for local culture. Claims were made in 1990 and 1999 to the Waitangi Tribunal against the sale of radio spectrum, on the basis that the spectrum was not the government's to sell. The claims could not attempt to prove prior technological knowledge and use of the radio spectrum by Maori before the treaty was signed in 1840. Instead, they examined the nature of the radio spectrum object, producing a very local

means of describing it. They also acknowledged the role of broadcasting and access to transmission frequencies in asserting local cultures and language against increasingly global flows.

The claims utilise the stories of various iwi to describe radio spectrum in a highly localised and meaningful way. The spectrum is located in the space between the earth mother, Papatuanuku, and the sky father, Ranginui, and is therefore a gift for the Maori people along with all other parts of creation. This interstitial space is also known as a conduit for knowledge - various tribal stories tell of journeys by ancestors through the heavens to bring back important gifts. Tane-nui-a-rangi and Tawhaki, brought baskets of knowledge from the heavens, and Pourangahua, brought the kumara from the ancestral homeland Hawaiki to Aotearoa flying on the back of a bird.¹ For many tribes, the matter and bodies of the universe are considered to be ancestors to the Maori people.² This is understood as an interconnection between all of the "elements and resources of the universe."³ It also implies that the air and airspace above a tribal area may be seen as a space of spiritual affinities for that tribe, and therefore not something that can be considered as property.

These and similar arguments serve to affirm that Maori understood the concept of the radio spectrum at the time of the signing of the Treaty, and also to identify the spectrum as a taonga (treasure), for which tino rangatiratanga (sovereignty) may be claimed. Under this principle, the Radio spectrum cannot be owned by the State, or sold to other parties. This is a description of radio spectrum that is completely grounded in local cultures. At the same time, it also acknowledges the spectrumscape as a site of the global transfer of knowledge, part of a continuous flow of culture and interrelationships between the earth and the heavens.

This was the only significant challenge to the government's alienation and sale of property in New Zealand's radio spectrum. While the government did not accept the challenge, the outcome of the claims was an acknowledgement of the cultural dimensions of radio spectrum, a factor removed from government consideration by the deregulation process. Rather than auction all intended frequencies, some FM radio and 3G bands were set aside for Maori language broadcasting and cultural and economic development. So far this has been more successful for broadcasting than the 3G cellular phone service, which involves another, longer saga of the relationship between indigenous cultures, the digital knowledge economy, and the global politics of mobile phone provision.

¹ New Zealand Maori Council and Nga Kaiwhakapumau I Te Reo, 'Maori Views on the Radio Spectrum,' Document A21, presented in claim Wai 776. p5

² New Zealand Maori Council and Nga Kaiwhakapumau I Te Reo, 'Maori Views on the Radio Spectrum,' Document A21, presented in claim Wai 776. p6

³ Huirangi Eruera Waikereruru. 1999. "Translation of evidence in te reo Maori of Huirangi Eruera Waikereruru." Document B9, presented in claim Wai 776. p2

4. Local issues: the “balanced mixed economy of broadcasting”

The practical outcome of those Treaty claims was the allocation of frequencies for Maori radio and television, and a commitment to the role of broadcasting in support of local language and culture. Other areas of New Zealand’s spectrum have also been removed from the auction process, and preserved as sites of local culture beyond the reaches of the global market. For example, pre-existing student, access, and religious stations were guaranteed frequencies during deregulation.

The Labour government elected in 1999 has extended the areas of spectrum reserved for culturally significant content as part of a more general policy shift to embrace Creative Industries, based on local cultural production and a sense of location modelled after the ‘Cool britannia’ brand. Broadcasting minister Steve Maharey has described this move as a means of increasing diversity in the use of New Zealand spectrum. He refers to this as a “balanced mixed economy of broadcasting” – in which “cultural, social and commercial values can intersect.”⁴ In this mixed economy, Maharey claims, “audiences are treated as citizens, not simply consumers to be delivered to advertisers.”⁵ This ‘mixed economy’ has only been able to evolve through specific policy interventions in the New Zealand spectrumscape, such as the reassignment of two bands of communications spectrum for broadcasting.

In 2001, the Government announced a new policy for the 100 to 106 fm band, which had been cleared of land mobile users. These frequencies were to be used for public broadcasting only – initially by the two state owned broadcasters, National Radio and Concert FM, and by Maori and Pacific stations. Further allocations within this band would be decided on the basis of local community needs, rather than commercial imperatives. More recently, the ‘guardband’ frequencies at 88FM and 106-7FM, have been opened up for unlicensed low power broadcasting, in which users share a limited number of frequencies by transmitting at no more than half a watt, and observing geographical separations. These frequency bands provide opportunities for highly localised content and cultural development within the national and global spectrumscape. This legislation is shifting already, but there is disagreement among LPFM broadcasters over the value of the updated regulations.

5. Local issues: Kiwi FM case

⁴ Maharey, Steve. 2005. “Foreword”. In Neil and Shanahan (eds). *The Great New Zealand Radio experiment*. Southbank, Victoria: Thomson, p12.

⁵ Ibid, p10.

My third example relates to this non-commercial band of frequencies, and connects with other concerns within the New Zealand radio industry relating to local content and proposals for a youth radio network.

After deregulation, and the resulting expansion of international investment in the radio industry, the level of local content on New Zealand radio reached a low of less than 2% in 1995. Various measures saw that proportion grow over the following years, however despite general industry opposition, a voluntary local music quota was introduced for all commercial radio stations in 2002. The industry's agreement to a voluntary quota was apparently reached in response to a government commitment regarding the rollover of spectrum rights at expiry, which is due to begin for radio frequency owners in 2011. This tradeoff has not been made very explicit, but the status of frequency licenses is a powerful bargaining tool for government.

More generally, as the ownership of spectrum rights has become an object of international trade, it appears that the need to assert local culture at a content level has become more powerful – both for the government and the industry itself. There are many factors in this issue in New Zealand, but I'd like to focus on one particular instance of the relationship between local content and global financial control, the story of Kiwi FM.

Kiwi FM was launched as an entirely New Zealand music station by Canadian owned company CanWest in 2005. CanWest is one of the two internationally owned networks that now account for almost all of New Zealand's commercial radio market. The establishment of the station was greeted with surprise and uncertainty in many quarters – not least from those who strongly supported the principle of local content. It was criticised, for example, for treating New Zealand music as a genre in itself, and for potentially 'ghetto-ising' local artists. There were a number of contributing factors in the development of Kiwi FM, and researcher Matt Mollgaard has suggested that the station was designed to position CanWest as a culturally supportive multinational force in New Zealand's spectrumscape.⁶ At the same time however, the presence of a 100% New Zealand station could reduce the need for a quota on other stations. As Mollgaard and others have pointed out, CanWest was essentially in a win-win situation, as Kiwi FM being more successful than the low rating youth station it replaced, would naturally be good for the company, while if the station failed, it could 'prove' a lack of audience support for both new Zealand music and the long discussed public Youth Radio Network.

In its first year of broadcasting, Kiwi FM failed to grow an audience, and their share dropped below 2%. However, instead of simply closing the station as had been assumed, CanWest reached an agreement with the government to

⁶ Mollgaard, Matt. 2005. 'Can a Multi-National Care About the Kiwis? CanWest and KIWI FM.' *Radio in the world: Papers from the 2005 Melbourne Radio conference.* Healy, Berryman, Goodman (Eds). Melbourne: RMIT Publishing. pp: 225-235.

rescue the station under an unusual arrangement. The government made frequencies at 102fm available in Auckland, Wellington, and Christchurch, to which Kiwi moved its centralised network format, with a relaunch in July this year. 102fm however falls within the 100-106 fm band of frequencies previously set aside for non-commercial broadcasting. This move was not well received by the radio industry. Kiwi FM was given those non-commercial frequencies for a year, during which it is to be restructured as a not-for-profit organisation. Its status as part of the CanWest group after this period is not clear, but there is no public suggestion that it is to be sold. The frequency move then left three commercial frequencies clear for CanWest to establish new commercial stations on. Criticism of the move focused on the apparent 'gifting' of non-commercial frequencies to one of the two dominant foreign-owned companies of New Zealand broadcasting, and the associated gain in commercial value attained by Can West in the move. It was also felt that the move effectively closed down any possibilities of the establishment of a truly local, distributed, Youth Radio Network, and potentially imperilled the general industry support for New Zealand music.

My interest here is not in the value of Kiwi FM itself, but to highlight the location of this issue within the spectrumscape. The New Zealand broadcast radio spectrum is overwhelmingly 'owned' by multinational companies who have bought their frequencies at great expense. By reserving the 100-106 fm frequencies for non-commercial use, the government effectively prioritised local culture over international commerce in a third of the available fm spectrum. The Kiwi FM deal complicates this neat division, being on the one hand a very definitive gesture of support for local culture, while on the other, a gift to a major international company. Further, the frequency shift after the failure of Kiwi FM in the commercial spectrum, suggests that local culture can only survive in this special preserve – returning the kiwi to its necessary place in a predator free environment.

6. Conclusion:

The spectrumscape is a dimension of nation in which issues of ownership and the relationship between local culture and international flows of commerce are played out in public, but are somewhat invisible. The spectrumscape is a site where broadcast media effectively happens, where local cultural concerns are negotiated against a stream of international money and content. The issue of sovereignty in the spectrum, the development of a 'mixed economy of broadcasting', and the presence of international companies in the reserved spectrum bands, highlight the tensions within New Zealand's radio spectrum management, between the local cultural interests of the Nation and the global financial flows of its broadcasters. By clearing some space outside the financescape for local content in various forms, current New Zealand spectrum policy has claimed some fragile sites for culture within our globalised spectrumscape.

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