

WE'RE ALL IN THIS TOGETHER -- PUBLIC BROADCASTING IN THE DIGITAL AGE

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Executive Summary

New Zealanders' media consumption has begun a notable and accelerating change. In the past year, the number of domestic internet connections that are broadband has risen to nearly 50% -- twice what it was two years ago.

New figures from Nielsen Media Research find that New Zealand-based news and information sites attract a greater proportion of internet users than any other category – even overseas search engines.

The internet activity to have shown the greatest growth in the Nielsen survey is internet video consumption. A year ago, 38% of internet users had watched a video clip online in the survey period – in the first quarter of this year, the number had jumped to 52%.

A survey of more than 800 regular internet users conducted for this paper found that nearly three-quarters said their TV viewing had declined, with 90% of those saying they had put the additional free time into "general internet use". Nearly all viewed internet video, in a wide range of settings.

The shift to the consumption of broadcast-style content on the internet is not business as usual. A recent Pew Research survey of online video use found that three-quarters of American users with broadband connections watch video online – and more than half of those viewers share links with their friends. Among users under 30, the proportion who shared links socially rose to two-thirds. The same dynamic can be seen emerging here: 20% of Radio New Zealand's internet media traffic is driven by referrals from blogs and other websites. The role of social internet behaviour in internet content consumption seems only likely to grow.

Although some digital developments – DTT transmission and DAB radio – are clearly associated with "old" media, developments overseas, including internet-capable set-top boxes and PVRs, suggest the internet dynamic will seep into other platforms. By contrast, interactivity within existing digital television platforms can largely be regarded as a failure.

In the context of this emerging media environment, the status of internet (and, to a lesser extent, mobile) collateral for publicly-funded programming needs attention. Currently, such collateral is scattered among broadcasters and producers with no clear standard for funding or ownership.

The digital world has also changed the dynamic for another sector of importance to NZ On Air: New Zealand music. There are strong signs – including a widening gap between sales and radioplay charts – that the music played on commercial radio is not the music New Zealanders buy. The focus

of music discovery is shifting to online retail social media: MySpace, YouTube and blogs. More than half the sample in our survey sampled music online before buying, even when they made their purchase at a physical retail store.

The funding agency also needs a more developed perspective on copyright issues, which may provide significant impediments to developing platforms.

There may be unfilled niches for new tools and platforms – such as the proposed NZScreen portal, a version of the US-based Public Radio Exchange, and content aggregation services.

In general, New Zealand media have begun to embrace the new challenges and opportunities of digital media in the past year. A frequently-voiced sentiment in background interviews conducted with TVNZ staff is that the "emerging business" has freshened and opened thinking throughout the company.

Finally, the new media environment opens enormous possibilities for public broadcasting, but all those with a stake in public broadcasting need to learn new styles of communicating with audiences and, in particular, the means and importance of winning the trust of those audiences.

As well as surveying this environment of change, this paper reaches a number of conclusions with respect to possible responses on the part of New Zealand on Air. These are as follows:

-- If an amendment is made to the Broadcasting Act allowing NZ On Air to fund some internet content, the immediate focus should be on material created as an adjunct to broadcast programmes. Programmes may often now be sold as cross-media packages, and if producers cannot fund the associated multimedia collateral, the programmes may be devalued. Rights in this collateral, and the right to host it, are likely to be the subject of strong debate between producers and broadcasters.

-- Short-form programming is beginning to make the shift from the internet to television, and is likely to form part of the daily viewer diet in future. NZ On Air should consider further experiments with such programming, and learn about the ways it can be delivered, shared and promoted across a variety of programmes. As noted in the section of this paper dealing with music, some audiences are likely to accept lower-budget productions far more readily than broadcasters themselves.

-- The merging of internet and broadcast-style content will be accelerated as new "hybrid" decoders from Freeview, Sky and some third parties enter the New Zealand Market mid-2008. While such devices will arrive as premium products and a mass transition will take years, viewers will increasingly cease to make a distinction between internet and television video.

-- There is a significant gap for a New Zealand content aggregator to package local content for transmission on a variety of platforms, including mobile and IPTV. NZ On Air should consider how it should respond to this need.

-- NZ On Air's role as the default funder for New Zealand music is becoming problematic as interactive and social platforms take on the role in music promotion and discovery formerly dominated by radio and, to a lesser extent, TV. The agency should consult with the music industry over potential initiatives that are less directly tied to the interests of broadcasters.

- In comparison to conventional TV and radio ratings, research on internet radio and video consumption in New Zealand conspicuously lacks demographic and qualitative content. NZ On Air may wish to consider adapting its research to discover more about such audiences.

-- The perception of what constitutes public broadcasting is broadening. For example, many of our survey respondents considered Maori Television to be in some respects a general public broadcaster. Triangle Stratos is likely to be regarded in the same fashion. If there is unlikely to be sufficient direct funding for the creation of content for a growing number of broadcasters with a national audience, should NZ On Air consider other ways in which it can facilitate the creation and distribution of local TV content?

-- Television will not simply be about material produced in the same ways, with the same budgets, at the same resolution. Indeed, the resolution spectrum has already grown broader -- it stretches from mobile phone video to HDTV broadcast. Viewers raised on the internet will accept widely varying production values depending on context.

-- The definition of public broadcasting may increasingly be in the eye of the beholder -- or, rather, viewer -- and some sense of trust or charter will form an important part of what makes it distinctive. New ideas of what public broadcasting is will need to be explored.

-- The survey conducted alongside the discussion paper revealed both a passion for the concept of broadcasting and a wealth of ideas about its future. NZ On Air should seek to remain engaged with such audiences, and, where appropriate, go out to meet them via third-party websites and forums. By the same token, interested consumers on the internet should be regarded as stakeholders, a sounding board and a source of ideas. NZ On Air should learn how to engage with these people.

-- The entire idea of public broadcasting may change in future, with its core concepts becoming more at home on the internet, with its low barriers to entry, interactive potential and increasing reach.

NEW HORIZONS: FREEVIEW

Governments in all developed countries are intervening to facilitate the migration from analogue to digital free-to-air television. Staying with analogue broadcast is not a choice in the long term, if only because the necessary equipment will become impossible to obtain or maintain.

A range of approaches have been employed and the New Zealand government has opted for a version of the Freeview model pioneered in Britain, where an independent venture handles standards, approval and Freeview brand marketing for digital decoders available via retail stores.

Freeview has been a success in Britain, where the government can now seriously look at switching off analogue transmission and freeing up radio spectrum as soon as 2010. In comparison to the heavily regulated Australian strategy, which has left household uptake apparently stalled at around 30%, it has much to recommend it.

To some extent, TVNZ is being asked to play the same role the BBC played for the British government – that of "anchor tenant" for the new platform. To this end, TVNZ has been provided with tens of millions of dollars in funding to develop new digital services.

This means that Freeview is not a level playing field: the state broadcaster can approach Freeview with a greater ability to deliver public value than commercial operators have. TV3 programmer Kelly Martin has already warned that whatever options her company chooses for Freeview channels will have to be commercially sustainable, if only as marketing vehicles for TV3's existing channels.

Martin has said that TV3's choices may even include an adult channel, "which would have the [Freeview] boxes walking out the door". Indeed, this has been a feature of the growth of Freeview in Britain, where the massively multi-channel environment has been filled with "porn, preachers and peddlers".

On the other hand, Maori Television has been quick to seize the opportunity to launch a new Maori-language channel on Freeview, and the entry of Triangle Stratos to Freeview offers considerable new public value. Along with Triangle's traditional access programming, Stratos will offer a national audience a selection of both offshore public television (DW and PBS) and semi-commercial news and current affairs from Al-Jazeera.

Stratos also provides some solutions for an issue that has proved troublesome for broadcasting policy makers: support for regional television. As well as functioning as a national channel in its own right, Stratos will act as a programming "backbone" for independent regional broadcasters, who will be able to re-broadcast Stratos programming as they require, and potentially share their programmes with other stations.

Stratos also has ambitions to commission and produce some low-cost community-oriented programming in its own right. It is likely that the Community Partnerships Fund in the Digital Strategy will provide some support here, but NZ On Air may eventually be asked to consider support for such programme production.

Stratos (and, perhaps, Maori Television) cannot afford an exclusive commitment to Freeview. An agreement has already been made with Sky Television to pick up and re-broadcast the Stratos signal from Freeview at no cost to either party. In the short to medium term, such an arrangement has obvious advantages to Stratos (which will carry limited advertising and sponsorship) in terms of audience reach. It may provide a signal of Sky's own strategy.

Freeview is also a platform for radio, and is but one of the new platforms for which Radio New Zealand has begun to prepare itself. The focus in public radio has thus far been on supporting new platforms and devices – Digital Audio Broadcasting, Freeview and DVB-H mobile (recently the subject of a technically satisfactory trial with Kordia) – rather than on new programming, but it may eventually wish to expand its programme offerings.

But it is the publicly-owned television broadcaster which will see the greatest change, cost the most public money and play the most pivotal role in the rollout of free-to-air digital TV in New Zealand. Until recently, TVNZ has been, like a number of other state broadcasters around the world, essentially defending an entrenched position. The ability to expand beyond its long-held turf appears to have provided the opportunity to expand its thinking too.

TVNZ's emerging businesses are said to be seeking a different relationship with the public. One executive interviewed referred to an attempt to be more open and accessible as the "de-dramatisation" of television. A demarcation between "commercial value" and "public value" has been drawn, and it is acknowledged that ondemand, TVNZ 6 and TVNZ 7 will largely provide the latter in the short-to-medium term.

The independent production community appears to have been keen to provide TVNZ with proposals tailored towards innovation, including those incorporating interactive features. (A key limitation of the Freeview technology is that it does not provide a return path for viewer interaction, but this role can be filled by mobile phones and the internet, as it is now.)

It is generally agreed that conventional television cannot easily be made for less money than it is now. But whether "\$30,000 a half-hour" television will occupy as many schedule hours in five years' time as it does now is doubtful. Although TVNZ seems to regard its key independent producers as efficient operators who "put it all on screen", programme budgets for TVNZ 6 and 7 will be leaner than those for the current free-to-air channels.

A commonly-expressed view within the organisation is that its emerging businesses – on the internet and Freeview – have changed the culture at

TVNZ. And, more importantly, that they have offered a vision of public broadcasting to which staff and stakeholders can subscribe.

If the internal culture at TVNZ has shifted in surprisingly short order, bringing on board the public will be a longer process. Research conducted for this paper (see *The Power Internet Users*) found a considerable well of resentment against the organisation among those who should most welcome its new directions.

NEW HORIZONS: NEW PLATFORMS

Conventional broadcasters in New Zealand have already made some notable strides into the new digital environment.

Radio New Zealand delivers 165,000 on-demand items and 100,000 podcasts a month. Its attractive, efficient website has helped freshen the broadcaster's image, added value to programmes and taken it into the business of written news reports, discoverable via Google News alongside the more familiar fare from newspapers. Moreover, its listeners are now used to engaging with programmes instantly via email, as they go to air.

TV3 has news video online, and has made the internet a key component of its Campbell Live show since its launch. A content deal with MSN, which sought a new partner after the end of its contract with Telecom Xtra, has expanded the audience for its online news clips. 3 News headline clips now also appear embedded in the independent news website Scoop.co.nz, suggesting that TV3 recognises a need to engage viewers via platforms it does not directly control.

MediaWorks' music channel, C4, has been adventurous with the internet. Its website is a major point of contact with its audience, and features news, video and content promotions with two mobile phone operators. It has also been willing in the past to go out to meet its audience at third-party sites such as YouTube.

Maori Television makes modest use of the internet; a reflection of the limited access of its audience to broadband internet at home.

New Zealand newspapers have also begun to follow the worldwide trend towards offering video content. Fairfax struck a content supply deal with TVNZ earlier in the year for its Stuff website. No local paper seems set to follow the *Guardian* in producing its own, daily internet television content.

Meanwhile, Telecom does not appear close to a public launch of its proposed IPTV service. (It is important to note the difference between TV-style content on the internet and IPTV, which delivers video via the Internet Protocol, but not over the public internet itself.) Technical issues and possibly concerns over content acquisition will delay its move into television, but it seems likely that if and when it does move, Telecom will style itself as a seller of channel

bandwidth, rather than a fully-fledged broadcaster. TVNZ and Telecom have been in dispute over whether the latter should pay to carry existing free-to-air channels.

It is likely that Telecom will wish to work with content aggregators rather than get too deeply involved with content itself. Vodafone takes the same view for its mobile platform. Support for, or establishment of, an aggregator for New Zealand content could be considered by NZ On Air in future.

In some markets, notably the Nordic countries, public broadcasters have been tasked with pushing the development of mobile television. The technology for mobile television exists, but with the limited exception of South Korea, it has not become a major factor. It seems likely that for the foreseeable future, mobile TV content will be delivered over existing mobile phone networks.

Even here it is unclear exactly what kind of programming will succeed. The experimental "mobisode" drama *MyStory* was available to download to mobile phone via Vodafone but, perhaps in a sign of the immaturity of the market, a similar commercial deal could not be reached with Telecom Mobile. Ironically, *MyStory* reached many more viewers through its airing on conventional television on C4, especially after it was recompiled into half-hour episodes for a repeat season.

(Note: It may be that the most innovative element of *MyStory* was its use of YouTube and MySpace where, for character development and to broaden the storyline, the characters were presented as real people. South Pacific Pictures has used a similar idea for *Outrageous Fortune* where the website features a regular personal blog attributed to the Loretta character.)

Sky Television already signs comprehensive rights deals for programming it acquires so it can carry out its commitment to deliver content to its viewers "when they want it, where they want it". Eight Sky channels are available on mobile through Vodafone Live and make up the bulk of the TV-style content on the service.

Vodafone has delivered more than 600,000 streams of Sky content, and says "many thousands" of one-off pay-per-view requests have been made for its big-match sports coverage. The company recently introduced a non-explicit adult video channel and a version of YouTube and has plans for more sport, music videos and possibly full-length movies.

But such content is essentially an extension of pay TV and falls outside consideration of public broadcasting policy. On the other hand, Vodafone's most interesting video content may prove to be user-generated. The company's Self Central feature allows customers to produce and post their own video clips in their own "rooms" (there are more than 20,000 rooms) and to sell clips to each other for 25 cents.

Other elements of Sky New Zealand's near future can usually be seen in its British sibling, BSkyB, which recently acquired the venerable British computer

maker Amstrad and announced the development of a set-top box that offers both PVR features and broadband internet access, for "premium subscriber" content in addition to its TV service. British Telecom has launched a similar device, incorporating Freeview.

Local industry sources suggest that such "hybrid" decoders, functioning as media centres that wirelessly network through the home, will be launched by both Sky and Freeview mid-2008, although the cost and performance of New Zealand broadband service is likely to be a constraint.

TVNZ has its own version of "when they want it, where they want it" in its "inspiring on every screen" slogan and has taken some significant steps towards broadening its distribution on new platforms.

The tvnzondemand.co.nz website was consciously created as a stand-alone site, relatively quickly, by a young team who were brought in to provide guidance to journalists at the ondemand media launch. More significantly, TVNZ took account of feedback after its initial plans were announced in 2006. The original plan had been to apply digital rights management (DRM) to free, as well as paid, content. Macintosh users complained that the Windows Media DRM would lock them out, while others demanded to know why DRM would be used on free content.

The DRM features could have been used to track viewer use of files, but the broadcaster decided it was better, as one manager put it, to be "on the side of the angels" and instead stream free content in the more compatible and less irksome Flash format.

It should be noted that the BBC, in the lengthy period between initial development and launch of its iPlayer on-demand software, made the opposite philosophical journey. Having declared "a commitment to platform neutrality and a remit to make its content as widely available as possible", the BBC launched iPlayer with a universal application of Windows Media DRM that made it playable only on Windows XP, not Vista, and not any non-Windows platform.

The corporation, rattled by a storm of criticism on the internet, and facing unhappiness from its own internet development staff, reiterated a promise to develop the player for other platforms in future.

The iPlayer software also included a peer-to-peer application (KService by Kontiki) that made use of viewers' internet bandwidth for uploads. Alarming, the fact that it continued to make use of the viewer's bandwidth even when it was not running was not documented. The BBC was abusing the trust of its public, something TVNZ avoided doing.

As part of the second phase of TVNZ ondemand, the company plans to release embedding code to selected independent websites, allowing them to

deliver its programming via their own pages. It may also allow these third-party sites to take a revenue share from the pre-roll ad sold by TVNZ. TVNZ is on the other end of such a deal with YouTube, as part of its branded channel presence on YouTube.

But TVNZ's main website remains dated. Although some laudable initiatives have emerged, including a blog from digital content chief Eric Kearley explaining the Freeview launch process, they are squeezed into a site where the focus is on presentation rather than engagement. It fails to connect meaningfully with either viewers or with the rest of the internet, and is almost impossible to search effectively.

With TV news viewership at its lowest in seven years, and signs that viewers are increasingly seeking news from the internet, the imperative to establish a more effective web presence is greatest in news and current affairs. Yet at present, internet news service is something TVNZ does relatively poorly, despite having plenty of good content.

Just as technical decisions on tvnzondemand.co.nz set the tone for the platform's favourable launch, so technology will determine destiny when TVNZ eventually revamps its current presence. The broadcaster will need to be careful to be decisive and not lose sight of core principles in commissioning this work. TVNZ invited the public to consult on a redrafting of its charter. It might be well-advised to do the same before it revamps its website.

It is important to recognise that the internet environment is about reciprocal relationships and is massively transactional. Google's pervasive advertising model brings a commercial relationship to the very smallest blogger. In this sense, the ability of a public broadcasting organisation to act commercially is actually an asset. Time – or more correctly, whether the emerging business achieves its two and three year revenue goals – will tell for TVNZ.

The internet provides a challenge to established broadcasters in another way: sophisticated users can and do use file-sharing networks to download offshore TV programming. The survey associated with this discussion paper found a relatively small number of internet users actually downloading, but a greater number watching the downloaded programmes. Many of those surveyed said they found a long wait for local screenings intolerable when they could consume news and commentary about those programmes instantly.

In response, the major broadcasters have sought to air "event" style reality television programming broadcast within a day or two of its airing in the US (in the case of *Rock Star Supernova*, local viewers were even allowed to vote alongside American viewers). Following American schedules, which break and repeat in ways with which local audiences are unfamiliar, can be problematic, but it appears that TV3 has decided to follow some Australian

networks in going "day and date" with its American programming. (C4 already screens *The Daily Show* within hours of its first airing on the US Comedy Central channel.)

Consumer piracy drives innovation, and as was the case with music piracy, TV downloading has produced new consumer offerings: most notably the iTunes Video Store and similar offerings from Amazon.com and others in the US. Again, as has been the case with music, these new on-demand services have become as important as promotional platforms as for any revenue they attract. Both Fox Network and NBC have sought to kick-start this year's Fall season by giving away pilot episodes, via iTunes and Amazon respectively.

Although there is much debate about the long-term viability of the paid model for internet video downloads, the legitimate download services could provide an important new avenue for producers, who may be able to distribute to very large audiences without the need for a broadcast partner.

In the long term, these a la carte services will provide a significant challenge to broadcasters who have relied on being able to fill prime-time slots with popular foreign programming, in the knowledge that viewers will have to come to them to see it. That will not be the case forever.

WELCOME TO THE SOCIAL

In January 2005, there was no YouTube. The domain had not been registered by its founders, Steve Chen and Chad Hurley, and the service did not go to a full public launch until November of that year.

Eleven months after that launch, YouTube, now serving 100 million video clips daily, was acquired by Google Inc. for \$US1.65 billion in stock.

Seven months later, Chen and Hurley stood up before an audience of journalists in Paris and laid out a strategy that included the launch of regional versions of the service in 11 countries, paths into living-room television and mobile phones, and content partnerships with both major commercial brands and a string of public broadcasters, including the BBC and Television New Zealand.

Much of what is discussed in this paper is encapsulated in the short history of YouTube: new revenue models, niche audiences, difficult issues around copyright, powerful new kinds of community, implications for democracy, consumers who produce, the path between the internet and television and, not least, the way that change in the new media world takes place on the margins and races toward the centre in ways that no one expected.

In his BBC Radio series *The Hitch-Hiker's Guide to the Future*, the late Douglas Adams remarked that the nervous questions of broadcasters and publishers concerning what the internet might do to their businesses was rather like the rivers and streams wondering what might happen to them once they hit the ocean.

The shift in emphasis from the traditional one-to-many model of broadcasting to a geographically unconstrained many-to-many configuration has been long anticipated but only very recently realised. A senior producer and programme maker for BBC Radio 4 described the new role for the corporation as being "no longer just about speaking to the public, but about being the context within which the conversation now takes place".

Evidence of this approach can be clearly seen within BBC-hosted discussion forums and community sites about radio drama programmes such as *The Archers* and *Silver Street*; music shows like those of Gilles Peterson and Zane Lowe; and television programmes as diverse as *Doctor Who* and *Gardener's World*. In the case of Zane Lowe's radio show, the audience not only reacts to and discusses the broadcast programme content, but the online discussion becomes a live part of the programme and even informs aspects of Radio 1 music policy.

However, an engagement with the programming output of established broadcasting institutions – as social, community-led and responsive as it might be – does not compare with the revolution in user-generated content and self-publication that has proliferated online in the form of blogs, podcasts, YouTube videos, homemade animations, shared photography and social networks of many forms.

Digitalisation has meant a great many things for broadcasters, not the least of which has been the destabilisation of the core principle underlying its economic basis: ownership of the means of distribution. The internet has not only undermined this central principle of broadcasting communication and business, it has now started to work on the broadcasters' monopoly over the creation of content.

The levelling of access to the means of distribution and tools of content creation has manifested itself in a number of ways, many of which are broadly encapsulated in the term Web 2.0. As opposed to the first version of the World Wide Web, which can be broadly characterised as a land of brochures, documents and signposts, this new "second version" of the web is a space within which one does something.

Web 2.0 allows audiences and consumers to make sense of existing content by tagging, commenting, sharing and re-presenting it. It provides the tools for content generation, a platform for self-broadcast, an environment within which media-rich conversations can take place, and a level of true interactivity (in which engagement with the content has the capacity to genuinely change that content) that can occur at an unprecedented level.

Where previous forms of interactive media have invited participation, contemporary (and increasingly dominant) Web 2.0 forms absolutely demand it – and the degree to which that participation transforms the output is exponentially greater than, for instance, caller participation in a phone-in radio or television programme or letters to the editor.

However, the already existing role of the broadcaster and publisher as a filter and site of professional practice suggests new possibilities for all media – possibilities that make the most of the different strengths of older media forms, but which can also recognise and leverage new forms of content, new distribution channels and new types of increasingly involved audiences.

Of course, a narrow focus on leading-edge technologies introduces the risk of alienating and abandoning existing audiences who are accustomed and/or restricted to (or prefer) traditional broadcasting methodologies. Although this core traditional group of media consumers is a slowly dwindling proportion of overall audience figures, it still constitutes a major segment of the readership/listenership/viewership and is to be ignored at the peril of the institution. These audiences keep appointments with media. Their daily lives are inscribed by its routines and they depend upon reliability and consistency of service. Replacing an old model for a new one is not the answer. Nor is retaining the old one at any cost. One media form does not win at the expense of another.

The media landscape is increasingly complex, and broadcasting solutions must necessarily be customised and flexible. There is no right way in which to solve these problems, but instead a series of interrogations of the media, the content and the audience in order to attempt to match each to the others, in order to provide a service that is both sought and appreciated, rather than exclusionary or redundant.

In the shift to the digital environment, the much-used metaphor of "migration" is one to be cautious about. We should not uproot and move to greener pastures any more than we should stay and defend our territory. The notion of "adaptation" is more apropos. An increased array of specialisations grown in natural response according to changing needs, environmental conditions and available food sources is a more useful analogy.

Broadcasters and publishers must ask "What is it that we do? What are we good at? Who is our audience? What do they want to do? What can we offer them in that respect? What technologies exist to enable that? How then can we prosper?" rather than simply "How do we make television, radio and print digital?"

If television and radio are merely appliances, then their fate is sealed. If they are simply methods of distribution via radio waves, then their place in the new media environment is one of marginalisation. If they are a type of programming, then they are but one type among an increasing diversity of interests and their possible gratifications. If, however, they are also professional and quality contexts for communication, education, discussion, entertainment, representation and engagement, then they will no doubt provide a welcome part of the contemporary media ecology.

With an eye on such ideas, the BBC has developed a prototype DAB receiver nicknamed Olinda that functions as a "social radio".

Described by one of its creators as "radio for the Facebook generation" Olinda connects to the internet via wi-fi and uses a social "now listening" website hosted by the BBC. In the prototype, a small number of your friends are represented on the device: a light comes on, to signal a friend is listening; press a button and you tune in to listen to the same programme. The BBC will make the Olinda hardware design available under a Creative Commons-style attribution licence, meaning it will be available to anyone on the condition that credit to the BBC is noted.

Another way in which new social applications born on the web are beginning to creep into the conventional TV environment is through short-form programming such as that found on YouTube. The Apple TV device presents YouTube as TV content and the developing relationship between Apple and YouTube has seen some of YouTube's catalogue migrated from the Flash format to the higher-quality H.264 codec. It is likely that video added casually to the service by users will remain in Flash while material that appears with the permission of copyright owners will increasingly be encoded at higher quality.

Consumers are prepared to accept these more modest production values in context. The owner of an HDTV system, for example, may still use it to view YouTube clips shot on a home camera.

Both Apple TV and the open-source computer application Democracy point to a likely change in viewing habits, where the hour previously filled by a single news magazine show may instead be used to view a series of short-form videos selected by the viewer, recommended by others and delivered as streams or video podcasts.

THE POWER VIEWERS

As part of the research process for this paper, an online survey was advertised on three local websites: Public Address, Throng and Scoop.

The intention was not to create a survey representative of the general population, but to capture the habits and views of the most active new media consumers. (Optional written answers were solicited for several questions. These are excerpted later in this section and are available in full as an appendix.)

Public Address and Scoop attract an educated, high-earning demographic of heavy internet users, while Throng, as a TV "fansite" skews younger.

More than 800 responses were received. Two-thirds of participants fell in the 25-44 age group, and three-quarters were male.

This is a Web 2.0 audience. More than three-quarters of respondents commented on blogs and discussion forums, nearly half had a presence on a

social networking site such as MySpace or Facebook and 38.1% had their own blogs. 19.7% had uploaded original video content to YouTube or a similar site.

In many respects, the group resembles the highly-engaged "omnivore" class defined in a report from the Pew Internet and American Life project in May 2007, and in some cases (including having a personal blog) participation rates were actually higher than those found by Pew among Americans. The chief difference between our sample and Pew's was that our average age was higher.

This is an important group with respect to any planning for expansion in new media. They are demanding consumers used to making positive choices and tend to be heavy internet users.

They're also a group on a long drift away from conventional broadcast TV. 73.5% said their television viewing time had declined in recent years, and 90% of those said that the additional free time had gone into extra internet use.

Currently, 59.4% watched up to two hours TV a day and 16.7% did not watch broadcast TV at all. All but one respondent spent more than two hours a day on internet use and 36.5% spent more than four hours a day on the internet.

Intriguingly, nearly half said the most important factor in guiding their TV viewing choices was "word of mouth from friends in real life", with 18.7% citing print media as the major guide to their choices. Across all rankings (participants were asked to rank the factors from 1 to 5), "word of mouth from friends in real life" was the clear leader, followed by print media coverage and local websites.

96.4% watched internet video at least occasionally, and more than a quarter watched it every day.

The video typically consumed was spread across a range of websites, with YouTube by far the most common (80.7%), followed by broadcasters' own websites (55%). Among local websites, the most commonly cited source for video content was Public Address itself (doubtless a reflection of the nature of the sample) at 68.9%, ahead of tvnz.co.nz (55.6%), tv3.co.nz (48.1%) and tvnzondemand (38.8%).

43.5% had downloaded TV programmes using BitTorrent or other peer-to-peer software.

A greater number had actually watched downloaded television, suggesting that there is an informal distribution network, with the technically able downloading the programmes and providing them to others.

By far the most significant reason checked for viewing illicitly downloaded programming was "it was programming I wouldn't otherwise have seen"

(67.5% chose it as their primary reason), followed by "I wanted to see the programme in a timely fashion" and "It's a handy way of dispensing with TV advertising".

In written comments, some respondents were strongly negative about illicit downloading of TV, while a greater number expressed moral qualms but did not regard the issue as clear-cut or said they would not watch pirated TV if the programmes they wanted were available in a timely fashion. A significant number were unrepentant, and a number cited TVNZ's controversial interruption of the final series of *The Sopranos* as the factor that drove them to download.

In answer to the question, "Let's assume the legitimate distribution of TV programming via the internet is eventually going to be commonplace. Which of the following business models do you think would be best?" 44.9% chose "Free, and supported by advertising". There was a roughly equal split between preference for a subscription model (23.6%) and a pay-per-view model (21.6%). In written comments, many respondents expressed a strong distaste for all advertising, while others wished for a more targeted advertising model like that which has evolved on the internet. Others were of the view that the most compelling pay model would be a pay-to-own system such as iTunes. Many also envisaged a mix of all options listed in the question.

Participants were asked about the BBC's plan to launch a global on-demand service for its programmes, and about the likelihood that the service will use Windows Media digital rights management (DRM), which could mean that programmes expire after a certain period. 6.4% said they would certainly subscribe, and 53.5% said they would consider it based on price and programme choice. A substantial 21.6% said they would be deterred by the use of DRM technology.

Nearly all participants (92.9%) listened to the radio on an average day, with 35.2% listening for up to an hour, and a further 27.2% listening for up to two hours. The most common means of listening was conventional broadcast radio, but nearly 8% listened to radio content without using broadcast radio. 36.7% listened to live internet streams from New Zealand radio stations and about the same number consumed local radio podcasts. Nearly a third listened to podcasts originating overseas.

As a group, the respondents were strongly engaged with recorded music. 79.8% said they bought music from physical stores, 54.6% ordered CDs over the internet and 33.7% bought legitimate digital downloads. More than a third admitted to illegally downloading music. More than half sampled music online before buying it, and nearly half watched music videos on YouTube and other sites. More than a third visited artists' MySpace profiles.

Only 142 respondents answered the question about mobile video use, but of those, 43.0% had shared a video captured on their phone via the internet, and 34.5% had shared such video via their mobile company's service. 41.6% had

made a video phone call. Written comments, on the other hand, were largely sceptical about mobile video.

When asked whether local TV programming being made available online meant they were more likely to see it, 38.2% said yes and 37.8% said "maybe".

Only 4.7% of respondents had installed a Freeview decoder, with the most common reason for not taking up Freeview being "I have Sky and I don't need more" (20.4%). More than half of those without Freeview expected to acquire a decoder eventually.

When participants were asked to rank the most important roles for public broadcasting "in an era of massive media choice", the most popular choice was "to provide an alternative to commercial media offerings", followed by "to foster local culture and national identity in a global world" and "to serve niche audiences". Delivering a financial return was ranked as the least important role by nearly 80% of respondents.

Some participants were very negative about the sustainability of public broadcasting, while a significant number felt that opportunities for public participation offered it a new and vital role.

Unprompted, a number of respondents cited Radio New Zealand and Maori Television as public broadcasting successes. Perceptions of TVNZ were often unfavourable, suggesting that the company has much work to do in communicating its newfound passion for public service.

Selected written answers to survey questions:

What's the future of public broadcasting?

"I think Reith's 'inform, education and entertain' remains relevant. Maybe even more so with the plethora of content – much of it total crap. Also enabling/creating niche communities."

"Very strong as long as it remains free of advertising. Public broadcasting will continue to renew itself on the broad basis of the requirements of middle-aged listeners (30-65), and will suck in many of the talented people working in commercial radio now. Without advertising, it retains the ability to offer vastly superior service, and as it continues to free itself of the constraints of the pre-rock generation, its content will get ever stronger."

"The future is to be cutting-edge and safe, to be the extreme of the wavelength ... to go where advertisers and commercial decisions cannot. To go to the people and be New Zealanders on screen and radio ... to do the

opposite of government departments. It should be the most creative place in broadcasting!!"

"There's a chance for TVNZ to use Freeview channels and other forms of digital delivery to air more thoughtful, challenging television. Raising the level of debate and encouraging innovative programme-making. There's the opportunity to do two great things: open up and encourage public access, and foster quality."

"Maybe they're doing themselves out of a job as the internet and alternative forms of media will divert more and more of their 'intelligent' audience away from their lowest common denominator programming. They underestimate their audience. Always a mistake I'd have thought."

"Traditional broadcast combined with internet distribution of additional content that may be created by non-traditional content producers; this could be a school play, a bunch of emos in a band or something that might not fit any radio or TV schedule, it's important that if it is out there it can be accessed and consumers can select what they want. A report on the prices at the local ram fair will have a natural audience, it might not fit a broadcast schedule. The future is more user-created content, less reliance on a broadcast schedule, but the broadcast schedule will still be important and will still be consumed. LPs never killed radio stations -- showing consumers still like scheduling."

"I'd like to see RNZ merged with (a re-branded) Maori Television, and the retention of TVNZ as a purely commercial broadcaster to fund ad-free public broadcasting. In the interests of informing and educating, I think the government should also sponsor a 24/7 BBC World TV feed in addition to broadcasting National Radio in FM Stereo to as many areas as possible."

"Content generation. Having 'broadcasters' truly independent of the funding source has generated most of the best big-budget content so far - think NPR, National Radio, BBC, etc. User-generated content scales up in some ways, but not others. A million bloggers won't write Macbeth, let alone fund the RSC to put it on."

"National Radio (and especially its podcast service) are doing a good job of balancing the public's needs, however they are not quite participatory enough. Refer: Radio Open Source from PRI. As far as television goes, I would like to see TVNZ dismantled and have content creation separated from content distribution. Content paid for by the public dollar should be freely accessible online in high quality with a liberal (Creative Commons-like) licence. I wouldn't pay for an episode of Shortland St, but I'm sure there are morons out there who would :) TVNZ's ondemand and other online services need to allow community tagging. Folksonomies are the new serendipity."

"Everybody is a broadcaster, providing RSS feeds of video/audio content of personal and commercial recommendations."

"Please don't let it be National Radio with pictures."

"Not just to provide an alternative to commercial media, but to lead the market in many areas. Public broadcasters should have a long term goal of genuinely educating the public so that one day people actually demand charter programming', forcing commercial media to compete accordingly."

"Public broadcasting will become a focus for local content, stories and voices and generally less commercially viable content. I think that it should become a truly non-commercial offering to mark it apart from all the ad-driven networks with which it competes. As such, the NZ government should actually fund TVNZ in such a way that it actually can operate in this manner, rather than the half-hearted hybrid model that it has provided. While it's easy to cite overseas examples with their larger budgets, why can't we have a model closer to Australia's ABC? As it becomes more and more difficult to discern a uniquely NZ voice on TV, isn't it worth funding TVNZ so it can provide a truly non-commercial product?"

"Public broadcasting should aim to make itself obsolete, by creating viable and vibrant channels/niches that become commercially viable. Think of the commercial acumen of Mai FM but with the soul of MaoriTV, free from the meddling interference of petty Wellington bureaucrats. Public broadcasting must realise that it occupies the landscape where a thousand flowers could bloom."

"Even though we are moving into an age of massive media choice I believe people will still congregate to a few main suppliers and recommended programming. Some of the 'mainstream' people probably do not want choice or would not know what to do with it. To a degree I think people will want to retain some of the current aspect of everyone all eating the same media lunch so that they can regurgitate it together the following day. There may be a competitive advantage to be had by the broadcaster who can best sort, catalogue and link to all the media that will be out there - perhaps they should aim to be the google of internet TV - of course they will want to make sure NZ content is fully accounted for as part of this."

""Maori TV is a really good start. They have some programming that absolutely nailed it. With a bigger budget, imagine what's possible on a national scale. And maybe there is a cultural aspect too. The Maori TV crew had a clear view of what they were aiming for. I'm not sure we, as a nation, and especially as Pakeha, quite do yet. So some big ass brain-storming on a national-level is needed. Why not crank up some massive, interactive national-road show where people can give ideas about what they'd like to see, what would reflect NZ, what would be fun, educational, etc."

Public broadcasting had an obvious role as the provider of a national voice when there were limited media choices and only one or two platforms. In an era of massive media choice, what should its role be?

"It's not just an alternative to commercial media; it should aim to raise the benchmarks for quality and thoughtfulness. Nat Radio does this quite well. TVNZ has abdicated this role".

"Is 'Public Broadcasting' broadcasting to the public, or broadcasting the public? Either way, the public can now broadcast itself, and platforms are an irrelevancy in a world with so many of them. Public Content Production may have a future, particularly if they get over the [intellectual property] issue and exploit anarchic distribution instead of, a la the BBC, wasting our time with DRM, protecting material we have already paid for and adopting a 'dog in manger' selfishness toward the rest of the world."

"Public is public, and although there will be value modeling, you can't expect positive, measurable, attributable ROI. The BBC model is a gem: public money for public content, a bit left over for high-value production of highly valuable content (e.g. Planet Earth), and then sell that content to channels for distribution. Broadcast experimental, unusual stuff that takes money to create and broadens the experience of the general populace."

"I still feel like the content, and form, of NZ television is still too narrow in terms of who it is addressing, the 'issues' it's covering, the way it sees itself, and the style in which it does these things. I'm not the first person to say this but I think Maori Television is performing more of a public service role than TVNZ. Why is that? Because it doesn't try to brand itself too much, and each show is allowed to be itself without being reminded of who made that viewing possible. I get a thrill out of watching TV overseas for the first time because of the 'newness.' I get that with Maori TV pretty much every time I turn it on. It feels like it's from overseas and yet it's familiar too. I'm not too worried about national culture because that's a fuzzy thing with most local television, anyway. It's a funny one though because I love US and British TV (cheap to buy of course) and yet I'd still like to see some risky or different NZ stuff too, and we're just not getting that in this overly commercial market that brings over a few gems and a whole bunch of crap."

MEASUREMENT

The internet is on the way to becoming ubiquitous in New Zealand. According to new figures from Nielsen Media Research Netwatch, 85% of the population (10+) has access to the internet at some location and 76% are internet users (defined as having used the internet in the past year). 66% are internet users at home.

The most common locations for internet use are the home (70%), at a friend or relative's home (34.5%) and at work (26.8%).

Importantly, a near-majority (46.9%) of home internet connections were broadband in the first quarter of 2007. This compares with 23.1% in the same

period in 2005, and 31.1% in 2006. Although monthly data caps remain a restraining factor, many New Zealanders have the ability to view rich internet content at home.

The content being consumed is also changing. The most commonly visited category of site visited has traditionally been search engines. But in the past year, New Zealand-based news and information sites (visited by 82% of browsers) have overhauled search engines. Given that the bulk of internet content consumed by New Zealanders has been overseas, this is a striking development. It suggests that New Zealand audiences are beginning to transfer their loyalty to established news brands to the online versions of those brands.

Visits to overseas news and information sites has also seen growth (45% to 53%). The other most popular categories are entertainment (49% to 51%), sports (39% to 40%) and auctions (39% to 42%).

The strongest growth in kinds of internet activity has been seen in watching internet video: from 38% a year ago to 52%. More people also downloaded music (23% to 27%) and listened to internet radio (17% to 21%). Another form of media consumption -- downloading ringtones -- remains a minority activity, with only 6% of internet users doing so in Q1 2007.

Specific measurement of TV and radio-like media online -- a key factor in assessing public value -- is still in its infancy. Podcast usage, which can take place independently of web browser use (for example, via iTunes software) is hard to measure, but Nielsen hopes to incorporate podcast consumption in New Zealand panel surveys.

All the evidence suggests that the dominant provider of podcasts, and probably of internet radio usage in general, is Radio New Zealand. After very strong usage growth for its online radio services, RNZ is now seeing modest monthly increases in all categories.

In July, Radio New Zealand served 165,000 audio on demand items and around 100,000 podcast downloads. Live streams served were 54,000 for Radio New Zealand National, 21,000 for Concert FM and 7,700 for Radio New Zealand International. Its website delivered 669,000 page impressions to a total of 110,000 unique browsers. About 20% of its traffic was driven by referrals from other websites and blogs.

The audience seems to cover a very wide age range. Younger listeners have commented that they would not listen to the conventional broadcast, but liked to use the podcasts.

In comparison to conventional TV and radio ratings, research on internet radio and video consumption in New Zealand conspicuously lacks demographic and qualitative content. NZ On Air may wish to consider a research project to discover more about this rapidly-growing audience.

COPYRIGHT

Copyright provides significant policy challenges to all public broadcasters as they move into the digital age. It is field a in which NZ On Air needs to develop ideas, positions and policies.

A prime problem is rights clearance, for the re-broadcast of archive programming, particularly via the internet, where the audience is always effectively global, and most of all in cases where viewers are permitted to download and keep content.

Even the BBC has found its most prized goals shackled by this issue. Its widely-lauded Creative Archive project has been seriously hampered by the task of clearing all the rights in archive material so it can be released to the public in new forms, although the corporation seems to be making better progress now.

(The BBC has had more success in establishing practice for a new kind of content -- that which it receives from the public. It now has a standard agreement for a transmission by all means, which is non-exclusive and does not otherwise limit the copyright of the creator.)

TVNZ has encountered similar problems as it attempts to open its own archives to the public. Until very recently, rights agreements took no account of the possibilities of the internet, and the task of clearing all rights is keeping some significant heritage programming from the ondemand service. But independent producers seem confident of eventually reaching a satisfactory agreement with TVNZ.

Agreement on music rights -- both for the re-broadcast of archive programming, and the use of music in programmes on the internet -- may represent a longer and more difficult road.

Revenue from performance rights and synchronisation (licensing for commercial use) is now crucial to writers, artists and record companies; often more so than revenue from retail sales. It is therefore understandable that copyright owners seek to derive the best possible return from their works. But worldwide, music rights issues are those that most often hold up programme distribution.

The Australasian Performing Right Association (APRA) and its sister agency the Australasian Mechanical Copyright Owners Society (AMCOS), which respectively collect performance and mechanical rights on behalf of composers, are regarded as more flexible than Phonographic Performances New Zealand, which acts as the licensing and collecting agency for members of the Recording Industry Association of New Zealand. (For example, Radio New Zealand was able to reach licence agreements for its internet streaming service much more quickly with APRA than with the major record companies.)

In part, this is because PPNZ policy settings are largely made overseas, with regard to overall returns on catalogue rather than public good in New Zealand.

Ironically, independent TV producers, who strongly defend their rights in negotiation with broadcasters, themselves run up against competing claims from music copyright interests.

If new licensing agreements for both internet and digital use prove elusive, it is possible that producers may seek to commission music, and acquire rights directly, in new productions. We may also see some artists step outside existing licensing structures, as the group Te Vaka did recently -- allowing Triangle Stratos to launch, by direct agreement, with a recorded performance by Te Vaka.

Another likely trend is that, in an age when new intellectual property often spans media types, producers will bring more media types "in house", as South Pacific Pictures has done in acquiring Satellite Media, which produces popular culture programming and the print magazine Rip It Up. SPP CEO's John Barnett's investment in Dawn Raid Entertainment can be seen in a similar light.

By the same token, record companies can be expected to cope with change by reforming their own businesses -- either by making them more vertical in structure (incorporating production, artist management and promotion, for example) or expanding horizontally in other media forms. It is not out of the question that tomorrow's independent TV producer might also be a record company.

A failure to agree global rights currently means that an important audience -- the New Zealand expatriate community -- is not seeing the benefit of new platforms. When a technical barrier to viewing clips overseas did not operate in the days following the launch of TVNZ ondemand, the service was flooded with traffic from New Zealanders in Europe.

TVNZ is eager to make this programming available to an expat audience, but copyright issues present a major barrier. It may be that an appropriate public "intervention" in this case would be for a public agency to negotiate global internet rights for selected programmes.

These are issues on which NZ On Air could be expected to keep a watching brief, especially as it embodies interests that should be heard in consideration of any legislative solution. One TVNZ executive told the author that he would be keen to see NZ On Air taking its place at the table in some discussions of rights.

An unusual and somewhat alarming copyright issue is contained in the Copyright (New Technologies and Performers' Rights) Amendment Bill currently proceeding through Parliament. It has been widely reported that the bill introduces permission for time-shifting of broadcast programmes - that is,

it legitimises the household use of a VCR or PVR to view programmes after the time of screening.

In fact, the time-shifting exception was introduced in the Copyright Act 1994. The effect of the new bill is to place conditions around the time-shifting right. And one of those conditions ought to be of concern to NZ On Air. Section 84(1)(c) appears to state that the time-shifting exception does not apply if a viewer can "lawfully access" the same programme on demand. It does not specify that the programme must be available on the same terms.

The effect will be to make it a breach to record from broadcast any programming on TVNZ channels that is to be made available via the tvnzondemand website, whether free or for a price. TVNZ's counsel told the Commerce select committee that the broadcaster did not want the condition, and regarded it as "unrealistic" and unnecessary. Given the potential for this condition to -- in theory at least -- hamper reasonable use of publicly-funded programming, it should be a concern for NZ On Air.

In considering the amendment bill, the Commerce Select Committee also reversed a proposal to repeal Section 88 of the current act, which allows for the re-broadcast via cable of free-to-air TV programming -- citing concern about the effect of a repeal "on the delivery of broadcasts to remote areas".

About 60% of viewing via Sky's pay service is represented by TV One, TV2 and TV3. TVNZ's view is that the retention of Section 88 provides an opportunity for new network operators, such as Telecom, to attract subscriber revenue with "free" content from its existing channels, and use that revenue to compete against TVNZ in programme acquisition. It favours the introduction of "must take, must pay" regulation such as that used in Europe to protect the interests of free public broadcasters.

Another issue lies with TV listings, which broadcasters have long regarded as being subject to their own copyright -- and therefore as a revenue source. Consequently, no agreement has yet been reached for rights to reproduce Freeview listings in the major print media. Were NZ On Air to have a funding interest in Freeview programming in future, it would reasonably expect information on those programmes to be easily available to the public.

The most portable programming, of course, will always be that bearing no copyright (the prime example being the new feed of the proceedings of Parliament) or material under an open public licence. On that basis, NZ On Air should establish a dialogue with the Creative Commons Aotearoa New Zealand organisation.

Creative Commons is a set of simple, transparent licences to be adopted by owners and creators in a world where, as Creative Commons Aotearoa New Zealand puts it, "digital technologies offer new opportunities for creating and disseminating knowledge of all kinds". Some licences restrict commercial or derivative use, or require attribution in any re-use, while others are more open.

Thousands of hours of publicly-funded TV programming, and other archive material, has little chance of ever being screened again, because its commercial value does not warrant broadcast time or cover rights fees. While the rights of independent producers must be respected, an experiment with releasing a small sample of this material under the forthcoming New Zealand Creative Commons licences could be made. Perhaps a discussion on securing such rights could be held alongside the rights negotiations for the forthcoming NZ On Screen web portal.

Alternatively, NZ On Air may wish to explore the idea of an experimental funding pool for new programmes offered on the explicit basis that those programmes are to be licensed under Creative Commons, and would therefore be available for all uses.

MUSIC

NZ On Air's key role in the New Zealand music industry is the result of a series of historical accidents. A variety of initiatives -- from funding for video and audio production to the Kiwi Hit Discs and the agency's radio plugging services -- have filled gaps in an industry whose combination of commercial and creative imperatives had long perplexed existing cultural funding systems.

The vastly increased presence of New Zealand music on air is a testament to the effectiveness of these initiatives. But it is a fairly widely held view in the industry that the current system is out of step with new and emerging realities.

The key problem is the focus -- one mandated under the Broadcasting Act -- on the creation of content for commercial radio play. It has long been the case that the New Zealand music chosen for radio play is not necessarily that with the most chance of succeeding in export markets. It now appears to be the case -- and respective sales and radio charts show a widening gap -- that the music chosen for radio play is not the music that New Zealanders buy.

One reason is that the focus of music discovery has steadily shifted away from radio, and commercial radio in particular, and towards new digital platforms.

These discovery platforms may be the point of sale itself. For many artists, a prominent presence on Vodafone Music, Amplifier.co.nz and the iTunes Store is more important than a presence on radio.

Closer to home, traffic figures demonstrate that the user base at Amplifier uses the site -- which streams music videos as "Amplifier TV" -- to sample new music. Amplifier's owners have considered expanding this role to an "Amplifier Radio" feature, or a "My Amplifier" section that offers social features to motivated users who wish to aid the discovery process.

Discovery also increasingly takes place via socially-oriented websites and internet applications, from YouTube to Last.fm, a service that allows users to see each others' listening habits. NZ On Air already plays a role here: it is not unusual now for creative decisions on NZ On Air-funded music videos to be made in the knowledge that a key part of the audience will view the clips online, at sites such as YouTube and MySpace.

One major label executive said that for certain local releases he would rather take the typical budget for a video for a single track on an album -- say, \$5000 from NZ On Air plus a \$2,500 record company top-up and make clips for every track on the album and have them "on every kid's MySpace". But, of course, such a production standard will not be acceptable to broadcast television.

In the authors' opinion, it is time for NZ On Air's role to be assessed -- and either expanded to address new media forms, or split off into a new structure that can meet the emerging needs of music creators, rather than broadcasters. But it would be wise to define the changes that would guide any such decision.

Though it might seem an obvious point, it is worth noting that the business of music has always been more than simply the selling of recordings to consumers. The record industry is but one part of a complex ecosystem of musical activity through which people make money and create culture.

But the recording industry not only currently commands the lion's share of the economic activity in the music sector, but has also been subject to many of the biggest changes as a result of digital and online technologies over the past decade.

Digital technology makes possible a degree of perfect replication and in quantities unimaginable to the music industries of twenty years ago. Two main forces have been behind the most significant challenge to the recorded music industry: file compression technologies such as MP3 which make music files sufficiently small to easily copy onto portable storage media or transfer over the internet; and the proliferation of broadband services with increasing internet speeds.

With music files taking seconds to transfer and digital technology allowing for replication to occur at unprecedented levels, record labels are concerned for the return on their investment. But the internet poses difficulties for businesses whose product exists in a digital form. The law of supply and demand enables the market to agree on a price for items such as records, cassettes and CDs. However, a digital music file is not subject to the same laws of scarcity.

The iTunes Music Store will only have one copy of a particular song in stock. It doesn't matter whether one person buys it or a million people buy it, they

will still only ever have one in stock. Traditional economics suggests that this sort of infinite supply demands a zero price point – and that the record industry is unable to sustain its profitability under such conditions of abundance, without radically transforming its business model in some way.

Of course, consumers are still willing to buy music – or at least engage with it in some economic fashion – but the record industry's prolonged attempts to prevent any other kind of engagement with music product has culminated in a continuing downturn in its collective fortune. And yet, while unauthorised downloading has clearly made some impact into overall sales, this is far from the only economic factor affected by digitalisation.

The process of recording music has been transformed through the miniaturisation and increasing affordability of high-quality digital recording platforms. The home/bedroom studio of today is capable of replicating much of what is possible in the most expensive studios, and musicians and recording artists are able to produce professional-quality music recordings with next to no budgetary outlay. The cassette and 4-track demos of the 1980s have been all but replaced by CD-quality promotional EPs and single tracks that can be stored, perfectly replicated and transferred via disc, USB pen, email, MySpace page or any other form of digital distribution system.

Similarly, the ability to reorder, remix and otherwise reinterpret existing recordings has exponentially increased to the point where most savvy computer users are able, whether they choose to or not, to construct musical montages, pastiches, collage works and entirely new tracks made from the pieces of others.

Even the professional practice of music recording has been significantly impacted by internet technologies, and many mastering houses are providing an online service in which they accept submissions via FTP (file transfer protocol), charge a set per-track fee and return the professionally mastered recording. In this way, they are able to expand the geographic reach of their business and arrange studio bookings into off-peak times that might ordinarily have gone unfilled.

Retailers have clearly been impacted by the growing power of internet connectivity. The Vodafone Music Store, which delivers music downloads to both its customers' mobile phones and personal computers, is now the country's largest retailer of singles.

Digital download sites such as the iTunes music store, music discovery and retail sites like Amplifier.co.nz and online mail-order companies like SmokeCDs.com have made a dent in the traditional bricks and mortar music retail.

Subscription models such as those embraced by eMusic.com, 'rental' systems like the (new) Napster, and "rent to own" models being discussed within the music industry bring new challenges to the way in which the economic consumption of music products are conceptualised.

Warehousing, shipping, manufacture, assembly and distribution have all been significantly affected by a shift to digital, allowing for efficiencies to be made in terms of returns and over-supply – though many of these middleman services have been replaced by different mediators (ISPs, digital aggregators and distributors, hosting companies, bandwidth, etc).

A further challenge to the recorded music industry is that of unauthorised distribution of digital music through a variety of technologies. This can range from an emailed track from friend to friend, right up to the wholesale distribution of entire catalogues of recordings being made available to the general population on peer-to-peer networks.

The far extreme of this, as expressed by the record industry, is the mass replication of CDs for black market sale. However, positioning this practice of CD piracy on the same spectrum as file-sharing misunderstands the economics, motivation and impact of each. Oversimplifications such as these draw a parallel between music enthusiasts recommending artists to each other, and organised criminal activities attempting to pass off fake products as the real item, substituting the sale of one with the sale of the other. As a result, the legal profession has arguably been the biggest winner in the music industry's shift to the digital environment.

It seems a natural impulse to wish to share one's musical tastes – especially in instances where a new discovery has engaged one's enthusiasm, or when a friend has not previously heard music that is held to be special or important. Where it used to be possible to play the music you had purchased to your friends and peers by inviting them to your house, or painstakingly making mixtapes on cassette, computers have both simplified the process and massively expanded its potential reach.

However, personal "word of mouth" recommendation is only one way in which consumers find out about music. Opinion leaders on radio, in the press and on television have long been influential in encouraging the consumption of recorded music products. There are, of course, analogues of these media in the online environment, as well as direct digital replication of offline mass media content (radio station streams, internet versions of newspapers, etc.).

However, in the online environment, barriers to entry such as scarcity of spectrum and the requirement for large capital investment are, for the most part, non-existent – and for that reason, podcasters, bloggers, microbroadcasters, YouTubers, citizen journalists, independent video-makers, online communities, social networks and ordinary consumers making and distributing their own content add significant complexity to the process of taste-making.

For the ordinary music consumer, this increased complexity has added a whole range of ways to discover, purchase, share, collect, organise and understand music. For the musician, it has opened up an enormous array of new routes to connect with audiences and engage with fans. For the record

company, whose role it is to market and exploit musical recordings, it has increasingly provided challenges to the 'vertical' (top-down) ways in which these organisations have traditionally made money – ways that they are understandably keen to continue.

But as consumers become producers of media, and engage with the content by remixing, sharing, creating and re-distributing, the simple record label business model based around the sale of plastic discs and promotion through radio, television and press begins to lose its dominance. CD sales are important. Radio airplay is important. Press coverage is important. Retail sales of recorded albums are important. But perhaps more important is the realisation that these avenues to the health of music business and the wealth of popular music culture are now only part of a much more complex and 'horizontal' ecology.

Significantly for music radio broadcasters and promoters of music products, the broadcasting model for music discovery is beginning to lose its dominance. A peer-to-peer recommendation system such as YouTube's 'Share This' feature enables audiences to easily pass on useful and highly targeted information about (and exposure to) music that their own personal contacts may enjoy. Emails with the subject line 'Check this out!' replicate traditional word of mouth, but take it to whole new levels, operate much more quickly and – with the right content – spread further faster than terrestrial broadcasting can achieve. Viral marketing of music – especially through promotional music clips – has proved an immensely successful method of raising awareness of artists and songs. Recent examples include OK Go! and Nizlopi.

The so-called "MP3 blog" has emerged in the past year as a middle path between the conventional music marketing system and the large-scale copyright abuse implicit in the major file-sharing systems. It is now incredibly easy to download an artist's entire catalogue in one hit via BitTorrent, but such a download offers no sense of engagement with or support for the artist.

MP3 blogs may breach copyright in offering samples of new (or old) recordings of interest to the individual blogger, but many such bloggers will immediately remove files at the request of the copyright owner. In many cases -- especially those of remixes of original content -- download files appear with the tacit approval of an artist or label. The major hub for such blogs is a site called Hype Machine, which indexes hundreds of MP3 blogs and offers playable (but not directly downloadable) versions of the files they contain, alongside direct links to buy the recordings from iTunes and other services.

The British group Radiohead recently took such an idea to a new level by releasing its latest album as a digital download for which fans could calculate and pay their own fair price.

It is not beyond the bounds of possibility that the concept of NZ On Air's Kiwi Hit Discs -- delivering free music to tastemakers in radio -- could, by

negotiation with copyright owners, one day be extended to listeners themselves, via the internet.

Even now there are many examples of the way New Zealand artists have benefited from the opportunities offered by the internet:

- Fat Freddy's Drop, whose MySpace profile attracts monthly audiences in the hundreds of thousands, and is a more influential route to discovery by audiences than any broadcast exposure for the band. The bands have also set the standard for engagement with online retail, and in particular national iTunes Music Stores, which have often featured the band on their home pages. (Although interestingly, the group's most important revenue source is not retail music sales, but the big crowds it now commands throughout Europe.)
- The Sneaks, whose distinctive video clips have been sent from friend to friend around the world as easily (if not far more so) as it might be transmitted locally on radio.
- Shapeshifter, who have used code from Amplifier.co.nz to create their own online store in their MySpace profile. This was recently the site of a hugely successful experiment with the band selling their own concert tickets for a national tour. Radio advertising for the tour directed fans to the MySpace page.

Moreover, the traditional opinion leaders for music (reviewers, radio presenters and programmers) have been joined by an army of music enthusiasts who write blogs about music, set up fan sites, share their tastes and preferences and discuss music on social networking platforms such as MySpace, Last.FM, Mog, Facebook, Bebo, and many others. Some of these new opinion leaders have regular readerships that rival press circulation and radio station listenership.

This kind of opinion-leading recently paid off for Christchurch group the L.E.D.s. The band struggled to get both reviews and radioplay for its self-recorded debut album, but it was periodically championed by bloggers at Public Address. Renowned tastemaker Simon Grigg, motivated in part by recommendations from bloggers, attempted to buy the album in Auckland during a visit. Because there was no third-party distributor, no one stocked it and he was obliged to obtain it by mail order from SmokeCDs.

When Grigg returned to Asia, he wrote about the album, declaring "I love this album more than I can possibly say, or at least, put into words ... It's the first perfectly formed pop album I've heard from New Zealand this decade." (He also slated the "awful" content on the latest Kiwi Hit Disc.) At the same time (although by coincidence) Public Address ran a guest blog by a reader (a university academic) praising the band and offering a free track for download.

Within a week, the band had retailers calling, was offered a national distribution deal and, for the first time, had its album for sale in both CD and

download formats. In that week, the internet did more for the band than a year's worth of earnest engagement with the conventional system.

Even the face of live performance is changing, with new models for gathering and catering to audiences emerging. At Home Gigs is an increasingly popular online service in the US, Canada and UK, in which artists offer live performances in the homes of anyone willing to pay their appearance fee. The gigs are generally fairly local and the fee, negotiated and paid online, is small – but many artists are finding the work sufficiently regular to make the practice sustainable.

Of course, music is pervasive throughout all electronic media – online, broadcast or in-store. Increasingly music businesses are finding ways to make money from music through synchronisation. The proliferation of channels and the creation of content by an ever-larger number of people means that it is increasingly possible to license musical works for independent films, advertising and computer games.

So the challenge to an organisation like New Zealand On Air, wishing to promote New Zealand music in an environment of technological change, is to consider the following:

To what end does the organisation promote New Zealand music?

Different answers to that question prompt different strategies.

If the purpose of promoting New Zealand music is for the propagation of New Zealand music culture, or to provide increased access for New Zealanders and wider exposure to music by New Zealanders, then a series of strategies around digital access, podcasts, online music video services and online marketing platforms for artists and labels that are willing to explore new ways of connecting with audiences is encouraged. An adoption of open platforms, the use of Creative Commons licensing, and the adoption of systems that facilitate audience engagement with the music through discussion, reinterpretation, distribution, and recommendation will assist with this goal.

If the purpose of promoting New Zealand music is to contribute to the business of making money from music in general, so as to incentivise the creation of New Zealand musical culture, then strategies need to be put in place that help develop new ways for music businesses to succeed on both the national and the global stage. These strategies include, but would not be exclusive to the recorded music sector. They might centre around plugging to international web broadcasters and expanding support for, and encouraging the development of, locally based online radio. It might venture into areas of music business that are not simply about the promotion and retail of recorded musical artefacts, but instead focus on live performance, creative business clustering and facilitating synchronisation.

If the purpose of promoting New Zealand music is to attempt to protect and ensure the dominance of traditional pre-digital record label systems through

the creation of radio hits, then the strategy must be to dissuade audiences from using digital technology to share, remix and contribute to the creative process. Internet platforms must still be adopted, as it is clear that the ratio of media consumption has shifted as a result of the online environment. However, these platforms must be selected on the basis of their popularity and their similarity to the broadcast top-down model. Such systems typically include copy protection and digital rights management (DRM) technologies that attempt to ensure that control over the label's intellectual property is not breached and that New Zealanders are allowed to listen to and enjoy New Zealand music to the same extent that they are able to pay for it.

New Zealand on Air is in a position to advocate a public service approach to internet-mediated popular music, waiata, classical and contemporary art musics. While the phrase "on air" has connotations of traditional terrestrial broadcasting – which in turn suggests an almost exclusively hit-focused approach to reaching the widest audience – there is, for now, an opportunity to define what is important to New Zealanders in the dissemination of musical culture in the new media environment.

This will, of course, include a continuation of support for radio-centric pop and rock hits, but also an opening up of opportunities to support new strategies for niche music, independent artists and new music. It will encourage access to music in performance and in forms other than traditional retail modes (CD, record, etc) and it will work with existing and emerging new media platforms as opportunities for New Zealand musicians to connect with audiences at home and abroad.

A further significant aspect of digitalisation is that it changes the way in which preservation and archiving can work. In an analogue world, a recording is preserved by locking it away in a vault, out of harm's way. If digitised, that work is best preserved by making as many copies available to as many people as possible. Protecting digital music is far more about giving it away than it is about stopping people from copying it. Although it has not traditionally been New Zealand On Air's role to archive and preserve New Zealand Music, there is an opportunity to explore its role in helping as many New Zealanders as possible hear as much of New Zealand's music as it can. Radio New Zealand's online presence may provide such a platform.

Finally, there is the opportunity for New Zealand on Air to act as a site of advocacy and support for New Zealand music businesses to embrace and implement new music strategies that make the most of the new media environments. By leveraging the promotional opportunities inherent in podcasting, online radio and MP3 blogs, and through partnership with technologists and new media producers, record labels and artists have the opportunity to negotiate new ways and models for making money from music that are, at present, stifled by attempts to shut down or impede experiments in new media content delivery.

In an age where New Zealand enters a world of digital television, digital radio, podcasting, streaming programming, social networks and peer collaboration

and distribution sites, New Zealand on Air stands as the ideal context for the negotiation between all of the interested parties, as New Zealand music looks to new and increasingly abundant platforms for delivery.

New Zealand On Air may not wish to explore all these avenues -- at least not on its own part. Indeed, it may be constrained by the Broadcasting Act from engaging in the ways suggested above. But it is crucial that the organisation fully understands the possibilities.

ROLES AND MODELS

The BBC remains the example for public broadcasters -- even when that example, as noted earlier in this paper, is an example of what not to do.

It sets the standard for most of the points modern public broadcasters seek to hit. It has used its multiplicity of broadcast channels to deliver both new, targeted content such as CBeebies and the distinctive BBC4 documentaries, and well-received catch-up programming schedules. Its websites, where some senior employees blog and respond directly to public questions, are admirable.

Yet, as we see in the next and final section of this paper, it has also been brought to disarray by the modern environment it has helped create. In part, the great Reithian broadcaster had failed to define its purpose more tightly. What, critics are demanding to know, is the relatively lowbrow BBC3 channel actually for? Should the BBC be seeking to compete with local newspapers by opening a swarm of regional websites?

Many public broadcasters and policy makers do not, of course, have the luxury of even being *able* to do too much.

The idea of a public broadcaster as an entity that plays a role in fulfilling overall cultural goals is the central part of Denmark's broadcasting policy. The Danish model has been suggested as one that could be followed by New Zealand, in that the Danish Broadcasting Corporation (DR) places a strong emphasis on public value activities (the first line of DR's 2007-2010 strategy document is a commitment to "create value for everybody in the country") that are partially supported by commercial revenue.

While the blend of commercial and public service activities might be seen as a more palatable framing of TVNZ's controversial "dual mandate", the differences between the two countries are so great that there is no prospect of the Danish model being directly applied to New Zealand. Although Denmark operates a "must-carry, must-pay" rule that requires cable companies to buy DR services from transmission, DR's commercial revenue is only one tenth of its licence funding, and DR and a separate state entity that operates regional services dominate audience share to an extent that would not be achievable or acceptable in New Zealand.

But DR's sports division has done something interesting: it has contributed to the Danish Wikipedia. This, too, is a potential role for other public broadcasters. Indeed, in a blog entry addressing the revelation of some embarrassing edits in Wikipedia from BBC staff computers, BBC interactive's editor Pete Clifton emphasised the far greater number of worthwhile contributions from staff and declared that "people from the BBC interacting with social networking sites seems like an entirely proper thing. We are only part of the web, after all, and we should be willing to freely link off to other places and to engage intelligently with some of them."

Although consideration of public broadcasting usually focuses on countries with state systems, it is also useful to look at public broadcasting structures in the US. PBS TV's recent presentation of serious factual programming in high-quality video formats via its website, with background reading, is hugely impressive. Other broadcasters would do well to emulate its style.

But another side to American public broadcasting lies in volunteer and community radio, which, with production equipment now within reach of individuals, is undergoing a renaissance. In no small part this is thanks to the Public Radio Exchange (prx.org) which states its mission to be to build a fair market for creative audio content and an online community of increasing gains; to create more opportunities for diverse programming of exceptional quality, interest, and importance to reach more listeners".

PRX runs a web-based marketplace where programming is free for registered users to browse and, subject to agreement with producers, download and re-broadcast. As of May 2007, PRX had 12,167 available radio pieces and 28,149 members, including 445 radio stations and 2,782 individual producers.

It has also created a software tool for producers to convert their work into a format suitable for radio playout systems, and this year launched the Public Radio Talent Quest, an open search for new public radio talent.

The Talent Quest site has attracted a community of 20,000 registered users, who (along with radio professionals and celebrities) audition and vote on entries, and also discuss the programmes and general public radio issues through multiple blogs hosted on the site. At the time of writing, 1,452 entrants have been whittled down to a final 10, and the anticipation on the site's forums has the flavour of a vastly more cultured American Idol fansite.

PRX also hosts another remarkable project: StoryCorps. StoryCorps, launched in 2003, captures oral histories. Anyone can enter one of six StoryBooths (two in New York City, one in Milwaukee and three mobile booths that travel the country). Although a trained facilitator may guide interviews, the subject is almost always interviewed by a member of his or her family. Participants leave with a CD recording and StoryCorps places another copy with the Smithsonian Institute. A few are played on National Public Radio.

StoryCorps also offers visiting facilitators, portable recording equipment with instructions, and a step-by-step downloadable guide to DIY recording.

Although these organisations are non-profit corporations supported by charitable donations (and in some cases sponsorship), their ideas ought to be of interest to all public broadcasters.

Elements of the American models can be seen in both Triangle Stratos, and in the web infrastructure built by Wellington Access Radio with funding from the Community Partnerships Fund in the National Digital Strategy. The system allows participating access stations in Wellington, Nelson and Hamilton to share and deliver programming online. The same system can, using metadata attached to programmes, be used to create tailored internet feeds -- say, all programmes in Chinese language, or all programmes about religion.

Such ideas might also be of benefit to New Zealand's Digital Content Strategy, which launched on September 6 2007. Although the strategy has much to recommend it - it is also suffused with an institutional mindset. The idea of interaction is important, and often hard for public institutions to grasp, or fully implement. Like the BBC, they may suffer from a clarity of purpose.

The nzscreen portal to be launched with backing from NZ On Air, proposed before this paper was begun, looks well-targeted. It aims to not only service, but engage the public. Each title selected by curators will be represented with, where possible, a streaming copy of the programme, production and other information -- and, crucially, a Wiki, where those with knowledge of the programme can build a record of public information. And, importantly, it stands apart from other institutions by virtue of being a dedicated trust, with a clear mission.

The chance also exists to experiment with ways of using an important body of copyright-free content: the proceedings of Parliament. A web service that made it easy to find, edit and embed material from the free Parliamentary video and audio feeds would be a democratic asset.

A shared characteristic of much of the above is that outside funding has not been used for the actual production of content, but to create tools and platforms for its sharing and delivery.

THE POWER OF THE TRUST

In late 2006, the website of the British newspaper The Guardian did something that shocked the media establishment across the Atlantic: it raced past the New York Times as 'the most read newspaper website in the English language' and thus, on the internet itself.

That The Guardian was able to achieve this status without even being the biggest print newspaper in Britain (the Daily Telegraph has more than twice the circulation and The Sun nearly 10 times) strongly suggests that something different is going on with the internet.

The Guardian is owned by the Scott Trust, which aims to "secure the financial and editorial independence of The Guardian in perpetuity: as a quality national newspaper without party affiliation; remaining faithful to liberal tradition; as a profit-seeking enterprise managed in an efficient and cost-effective manner".

The trust was formed in 1936 with the specific intent of protecting The Guardian's liberal editorial line from interference by future proprietors. In the modern era, it has also served to shield The Guardian from financial predation by proprietors. Money that might have been siphoned off was available for investment in its new media platform, to the tune of millions of pounds a year. Most notably, it has recently set the standard for adoption and adaptation of the blog format.

While The Guardian itself continues to lose money (it is cross-subsidised by Auto Trader and other assets in the Guardian Media Group) its website is now a profit centre.

But the rise of The Guardian online can also be linked to a property of charter operation that has great benefits in the networked world. It is the only British newspaper company that subjects itself to an annual social, ethical and environmental audit. Its primary commitment is to its outputs, rather than its returns.

In the internet environment, trust and authority have become separated. A major media organisation will always have authority, because it has scale - but trust is conditional. There are many examples of the internet audience placing its trust in very small ventures: Snopes.com, the ultimate arbiter of urban myth, is a husband and wife operation. By contrast, news media are more often regarded as dupes who will relay, sometimes recklessly, such dubious information.

At the other end of the scale, Google enjoys its status in part because its users - who entrust it with a huge quantity of their information - sense some element of charter about it; if only in its famous motto, "Don't be evil". It is regularly obliged to adjust its policies around information to maintain trust, and constantly stands at risk of the loss of that trust.

In an interview with one of the authors of this paper at the Broadcast Asia trade show this year, Dr Chrichton Limbert, head of news modernisation at the BBC, discussed the reciprocal relationship of trust with the BBC audience that took shape from the day of the July 7 London bombings in 2005. In what the BBC's news director Helen Boaden characterised as a "gear change" in the broadcaster's relationship with its audience, more than 300 emails (containing an average of three images each) and 30 video clips were sent in by members of the public.

In 2007, Limbert said, BBC News receives 10,000 items from the public "on a quiet, rainy afternoon" and when a major news event takes place, the load swells to more than 100,000 items. The volume has become so great that the organisation is experimenting with filtering and picture recognition software to find important items as quickly as possible.

"When people send us this stuff they have to trust us to deal with them honestly and openly", he said, while, however robust its efforts to verify material before airing it, the BBC was also ultimately obliged to trust the members of the public who provided it.

"All relationships now are two-way. We were trusted almost from on high. But we're all in it together now. We are literally all in it together."

Shortly after that interview was conducted, a series of events unfolded which, in remarkably short time, led to what was widely regarded as a crisis of public trust in the BBC.

Scandals over two faked phone-in competitions on BBC programmes, and a promotional documentary trailer that misleadingly depicted the Queen as staging a tantrum were not major in themselves. But other minor manipulations emerged, and, in the last week of July, The Guardian published a poll revealing that 59% of people trusted the BBC less as a consequence of the scandals.

None of the scandals involved the news division, and the misleading trailer was the work of independent producers, but the reaction demonstrated that a loss of trust in one part of the organisation added up to a loss of trust in the whole.

The public's loss of faith in the BBC seems to have fed into a general disenchantment with television. A poll commissioned by the Edinburgh Television Festival found that three quarters no longer trusted phone-in competitions and nearly 60% believed that TV documentaries manipulated the truth. At the same event, a BBC news presenter gave a keynote lecture which he described as "a plea for the soul of television".

"Once people start believing we're playing fast and loose with them routinely, we've had it," Jeremy Paxman said in the lecture.

"And the problem is not going to be addressed until senior people in this industry have the courage to come out and state quite clearly what television is for.

"What's needed is a manifesto, a statement of belief. There has been a catastrophic, collective loss of nerve."

Hours before Paxman spoke, The Guardian published a column by BBC director-general Mark Thompson: "Anyone who does not believe this episode (various assorted violations of trust with the public) has damaged public trust in us is deluding themselves. The public are just not passive receivers any more. They increasingly enjoy active participation and watching and listening to others interacting."

Thompson noted the "irony" that the BBC was under assault now, when it was more open than ever, while "for much of its history, the BBC could be aloof and erratic in its direct dealings with the people it served. Interviewees and studio audiences were sometimes treated with disdain. Some complaints went straight into the bin."

Indeed, beneath his column, viewers took the opportunity to offer withering comments on Thompson's piece, in language in which no one would have addressed the BBC controllers of yore. But that is the lesson of the age. The same technologies that helped turn the public into surprisingly sophisticated producers of news also make them more demanding, and vocal, consumers.

In his interview, Dr Limbert noted another consequence of the broadening of media:

"We're subject to all same sources of information, the same blogs and websites, as everyone else. Exclusivity is getting quite rare. Genuine original journalism is becoming much harder to do because there's so much more out there - to find the one thing that nobody else knows about."

The Guardian's leader-writer also traced the BBC's bellwether incidents to the race for exclusivity, commenting:

"The ratings dilemma, a hoary old problem, grows more difficult in line with fragmentation. The BBC's two main terrestrial TV channels are haemorrhaging audiences. Back in January, after a disappointing night at the Royal Television Society's awards ceremony, Mark Thompson sent an excitable email that dangerously echoed Henry II's turbulent priest speech. To "get the gongs", he said, there must be "more exclusives" - easy enough to interpret as a licence to distort the facts, especially by the independent producers that now supply at least 25% of the BBC's programming - such as RDF, makers of the troubled Queen documentary. The independents need commissions as much as the BBC needs ratings. But to justify the shows that send some people fumbling for the remote control, the BBC also needs the external confirmation of its journalistic skills and programme-making standards reflected in awards. That doesn't require further ravenous

commercialism, but time and perseverance as well as style and technique. And that means money. Maybe BBC3 (home of such unedifying shock docs as *Teens Addicted To Porn* and *My Man Boobs and Me*) could be sacrificed in the interests of even more cash for journalistic standards elsewhere. Maybe the BBC should reconsider its ambition to develop local web services that threaten the viability of hard-pressed local newspapers."

That passage also touches on another downside to fragmentation: an overall dilution of quality. Digital television in Britain has ushered in a tide of, as one documentary put it, "Porn, Preachers and Peddlers".

That is something from which public broadcasting can and should stand aside. In an environment of almost limitless choice, public broadcasting needs to state, and live by, a clearly-defined purpose.

Ironically, to gauge from our own polls of internet users, TVNZ has the advantage of having no lofty perch from which to fall. It is not widely trusted as it is. But it now has the chance to let its emerging businesses lead it to a clearer proposition for its owners and viewers, and a more open relationship with them. In this sense, its charter becomes a point of difference, rather than a structure imposed from above.

CONCLUSIONS

At this year's New Broadcasting Futures: Out of the Box conference, South Pacific Pictures CEO John Barnett argued strongly for continued public "intervention" by NZ On Air to maintain the viability of producing and broadcasting local content.

His argument would find many backers, yet the intervention on which NZ On Air's role in TV and radio has been built -- the funding of production for programmes that reach a national free-to-air audience -- may not itself remain viable.

There will soon be more free-to-air channels with a national audience than NZ On Air can afford to stock. So what other interventions would serve the principles on which NZ On Air is funded?

There is no right or wrong path forward, if only because, as the experience of recent years has demonstrated, no one really knows what will happen in the next five years.

But some conclusions present themselves:

-- If an amendment to the Broadcasting Act allowing NZ On Air to fund some internet content is passed, the immediate focus should be on material created as an adjunct to broadcast programmes. Programmes may often now be sold as cross-media packages, and if producers cannot fund the associated multimedia collateral, the programmes may be devalued. Rights in this collateral, and the right to host it, are likely to be the subject of strong debate between producers and broadcasters.

-- Short-form programming is beginning to make the shift from the internet to television, and is likely to form part of the daily viewer diet in future. NZ On Air should consider further experiments with such programming, and learn about the ways it can be delivered, shared and promoted across a variety of media formats. As noted in the section of this paper dealing with music, some audiences are likely to accept lower-budget productions far more readily than broadcasters themselves.

-- The merging of internet and broadcast-style content will be accelerated as new "hybrid" decoders from Freeview, Sky and some third parties enter the New Zealand Market mid-2008. While such devices will arrive as premium products and a mass transition will take years, viewers will increasingly cease to make a distinction between internet and television video.

-- There is a significant gap for a New Zealand content aggregator to package local content for transmission on a variety of platforms, including mobile and IPTV. NZ On Air should consider how it should respond to this need.

-- NZ On Air's role as the default funder for New Zealand music is becoming problematic as interactive and social platforms take on the role in music promotion and discovery formerly dominated by radio and, to a lesser extent, TV. The agency should consult with the music industry over potential initiatives that are less directly tied to the interests of broadcasters.

- In comparison to conventional TV and radio ratings, research on internet radio and video consumption in New Zealand conspicuously lacks demographic and qualitative content. NZ On Air may wish to consider adapting its research to discover more about such audiences.

-- The perception of what constitutes public broadcasting is broadening. For example, many of our survey respondents considered Maori Television to be in some respects a general public broadcaster. Triangle Stratos is likely to be regarded in the same fashion. If there is unlikely to be sufficient direct funding for the creation of content for a growing number of broadcasters with a national audience, should NZ On Air consider other ways in which it can facilitate the creation and distribution of local TV content?

-- Television will not simply be about material produced in the same ways, with the same budgets, at the same resolution. Indeed, the resolution spectrum has already grown broader -- it stretches from mobile phone video to HDTV broadcast. Viewers raised on the internet will accept widely varying production values depending on context.

-- The definition of public broadcasting may increasingly be in the eye of the beholder -- or, rather, viewer -- and some sense of trust or charter will form an important part of what makes it distinctive. New ideas of what public broadcasting is will need to be explored.

-- The survey conducted alongside the discussion paper revealed both a passion for the concept of broadcasting and a wealth of ideas about its future. NZ On Air should seek to remain engaged with such audiences, and, where appropriate, go out to meet them via third-party websites and forums. By the same token, interested consumers on the internet should be regarded as stakeholders, a sounding board and a source of ideas. NZ On Air should learn how to engage with these people.

-- The entire idea of public broadcasting may change in future, with its core concepts finding more of a home on the internet, with its low barriers to entry, interactive potential and increasing reach.

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