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The ABA On-line Services Investigation

Kaaren Koomen summarises the findings and recommendations of the Australian Broadcasting Authority's report on regulating on-line services.

The Internet and other on-line services provide the infrastructure for communications and information services used by millions of individuals and organisations around the world. The connection of networks of computers makes possible the exchange of ideas and information in a manner not possible via traditional electronic and print media, resulting in an astounding diversity of content.

These networks are not centrally controlled or owned and the functions performed by the participants in the on-line environment are not as fixed as in existing publications and broadcasting models. Most significantly, any person can create material and make it available on-line.

Terms of Reference

With the growth in the use of on-line services as a new communications medium, community concerns were raised about the content of some of these services. Of particular concern was the perceived ease of access to material which may be 'offensive' or harmful. Responding to this concern, the Federal Minister for Communications and the Arts directed the ABA to conduct an investigation into:

- the content of on-line information and entertainment services, including services on the Internet, and to consider the appropriateness of developing codes of practice for on-line services which, as far as possible, are in accordance with community standards.
- technological advances and service trends in the provision of on-line information and entertainment services by the broadcasting industry; and
- the extent to which these services are accommodated by the *Broadcasting Services Act 1992* ('the Act).

In conducting the investigation the ABA placed a high priority on understanding the technology and services underpinning the Internet, and the manner in which on-line services are being introduced into homes and schools. The ABA sought to ensure that any proposals for the development of a regulatory framework for on-line services are practical and appropriate to the on-line environment and addressed identifiable community needs.

To achieve this the ABA consulted widely with representatives of the on-line community, including on-line service providers, content providers and users, businesses, government departments, academics, educational and community organisations and individuals.

The Investigation also developed a strategy aimed to increase public awareness of the project and disseminate information about the Investigation. This included establishing a Web site and an email address. (The ABA's Web address is: **http://www.dca.gov.au/aba/hpcov.htm**. Its email address is **online@aba.gov.au**)

In December 1995 the ABA released an Issues Paper which sought to provide a basis for interested parties to make submissions to the Investigation. At the close of submissions 219 formal submissions were received by the ABA, many of which were received on-line.

The On-Line Services Report

On 1 July 1996 the ABA delivered its Report to the Minister for Communications and the Arts, Senator Richard Alston. The report was publicly released on 5 July 1996. The Report totals 212 pages and is available at the ABA's Web page or from the ABA's Sydney office. Outlined below are some of the key findings and recommendations.

MAIN FINDINGS

The nature of on-line services

The Investigation into the Content of On-Line Services identified the range and nature of on-line services available

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now, and those anticipated in the foreseeable future. Existing services included the world wide web, newsgroups and Internet Relay Chat, to name a few. The ABA also found that as technology converges and services are accessible on a number of hardware platforms, the demarcation between services which are currently delivered on personal computers as opposed to television sets and radios is likely to fade.

Significantly, the ABA found overwhelming support in the community for on-line services and for the opportunities they present for enhanced communication, information and entertainment.

The ABA acknowledged that services available on-line may be intended for both public and private communications. The ABA took the view that essentially private communications, such as e-mail, should be exempt from any new regulatory regime.

Where on-line services deliver content which is in the form of television and radio programs delivered in 'real time' the ABA found that these may fall within the regime applicable to services under the *Broadcasting Services Act 1992* ("the Act"). However, the ABA found that the majority of on-line services are not accommodated by the Act.

The Nature of Content on-Line

As a source of content, the ABA found that on-line services offer users an unprecedented level of variety, as well as quantity, of information from all over the world.

The ABA's investigation into the presence of material which would be refused classification under the current National Classification Code ("objectionable material") confirmed that it is available and that this is a matter of serious concern. However, the ABA also found that the chance of being involuntarily exposed to such material is low.

In relation to material which would be restricted to adults under the National Classification Code ("unsuitable material") the ABA found that this can be more easily located, particularly by the motivated searcher, but is often accompanied by warnings and/or requires the provision of credit card or other details.

The ABA investigation identified a range of community concerns about on-line services which will need to be addressed by the on-line community if these new services are to be used in the most productive and effective manner. The concerns identified went beyond concerns about objectionable and unsuitable material and included other content issues such as the potential for vilification, discrimination and harassment, and consumer issues such as standards of service, billing and credit management, and privacy.

The ABA recognises that on-line services are a global phenomenon, however, the ABA believes that there is much that codes of practice can achieve in the domestic arena.

MAIN RECOMMENDATIONS

A Self-Regulatory Regime for On-Line Services

The ABA considers that codes of practice, developed within a self regulatory framework, would facilitate the productive use of on-line services by the Australian community.

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It has recommended that industry codes of practice should be developed by on-line service providers. This emerging industry group provides an important intermediary function in the on-line environment and can achieve much in terms of finding practical and workable solutions to address community concerns. The main elements of the proposed regulatory framework are:

- the identification of matters which should be included in codes of practice for service providers, which provide appropriate community safeguards, including complaints handling procedures;
- the registration by the ABA of such codes of practice, developed by service providers after a process of public consultation; and
- the monitoring of the codes of practice, and their effectiveness, by the ABA.

Codes of Practice

The ABA identified a range of matters which service providers will need to address in the codes of practice. These include:

- Age Verification Procedures
  In relation to unsuitable material the ABA has recommended that service providers include in codes of practice reasonable age verification procedures which aim to limit the holding of an open on-line account to persons over the age of 18. This aims to prevent children's access to open on-line services without some adult supervision.

It should be noted that this does not seek to impose on service providers an obligation to *guarantee* that potential account holders are over the age of 18 but seeks to encourage the adoption of reasonable steps which aim to achieve this result. Appropriate exemptions for educational institutions has also been recommended.

- Reasonable Procedures to deal with objectionable material
  The ABA has recommended that service providers include in codes of practice any practical steps which can be taken in respect of objectionable material once a service provider is been made aware of that material. The ABA recognises however that in some circumstances the measures which service providers can take in relation to this material are limited.
- Information for users and content providers on legislation which may be relevant in an on-line environment

The ABA recognises that one of the compelling features of on-line services is that it provides the opportunity for many individuals to communicate and make content available to others in a way which has not been previously possible. The ABA also recognises that, unlike traditional media outlets who are accustomed to obtaining legal advice in respect of providing content, many participants in the on-line community do not have this same level of knowledge of the laws which may apply to them.

Accordingly, the ABA has recommended that codes of practice play an educative role by including some information about the laws of defamation, copyright, and any vilification or criminal offence provisions which may be relevant on-line. However, this is not intended to render a service provider liable for any breach of civil or criminal laws for which it would not otherwise be liable.

- Consumer Issues
  The ABA has also recommended that a number of consumer issues should be addressed by codes of practice, such as billing, support services, privacy and credit management. The ABA took the view that if appropriate practices and safeguards are introduced for these matters then Australians will be encouraged to pursue the benefits offered by on-line services with greater confidence. The adoption of such consumer safeguards may also make the services offered by Australian service providers more attractive in the international marketplace.

Criminal Offence Provisions

At the time of writing its Final Report the ABA was aware of moves to introduce specific criminal offence provisions for on-line services. These related to objectionable material and the making available to minors of material which may be unsuitable for them. The model criminal offence provisions which had been drafted for the State and Territory Censorship Ministers referred to a number of defences which would be available to a service provider in a prosecution. These include compliance with an applicable industry code of practice. The ABA took the view that any codes of practice referred to in the model criminal offence provisions should be the same codes which are registered by the ABA to ensure that the codes operate as part of a co-ordinated regulatory and enforcement strategy applicable to the on-line industry.

A Labelling Scheme for On-Line Services

In considering strategies to limit children's access to material which is unsuitable for them the ABA recognises the difficulties in attempting to apply on-line the existing classification models for television, films, videos and other publications. In the ABA's view a new approach to limiting children's access is required.

Many submissions advised that available filter software products, combined with parental supervision could provide parents and other supervisors with a degree of control over childrens use of on-line services. However, filter software can restrict access to an amount of valuable material and does not allow for the consistent application of Australian community standards and cultural values.

Recent developments with content and selection software have provided the technology for labelling of on-line material. This technology is called the Platform for Internet Content Selection (PICS) and, although emerging late in the investigation, it has strong support from the industry and on-line community. PICS is an Internet Protocol which can support the labelling of Internet Content. PICS itself is value neutral and does not establish the labelling standards. However, it does provide the infrastructure for others to label content.

Labelling can be applied directly by content providers when creating and distributing material on the Internet or it can be applied by a third party in accordance with an established labelling system. Once material has been labelled, any PICS compatible selection software or browser can read the labels. This will empower users to choose which types of labelled material they wish to view and which types of material they wish to block. For example, a user may wish to block out any Internet material which has been labelled in a way to indicate that it contains violent material.

It is likely that different labelling schemes will develop world wide to reflect different community and cultural values.

The PICS system gives Australia the opportunity to develop a labelling scheme for on-line content which incorporates Australian community values and standards. To this end the ABA has recommended that it convene an On-line Labelling Task Force, with all relevant parties, including the Office of Film and Literature Classification and the on-line industry to develop a labelling system which can be used by Australian content providers and consumers. The ABA also recommends that Australia participate in the PICS development process in the international arena, and collaborate with relevant expert bodies to maximise Australian labelling consistency with overseas ratings schemes.

Other Recommendations

The Report makes a number of recommendations which seek to promote the productive use of on-line services in Australia and encourage the development of Australian content on-line. The ABA has also recognised that community understanding of on-line services, codes of practice and the implementation of labelling schemes will be critical to their success and has recommended that a co-operative approach to community education by government, industry and consumer groups be adopted.

In view of the dynamic nature of on-line services the ABA has also noted the need to monitor developments to ensure that the proposed regulatory regime remains effective and appropriate and encourages the productive use of on-line services in Australia.

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Satellites - the Information Superskyway?

Chris Deacon argues that the role for satellites in the global information infrastructure should not be under-estimated.

It is well accepted now that satellites can play a unique role in a number of communications scenarios.

For example, satellites are often appropriate for rural or remote regions that are poorly served by existing terrestrial fixed wired or wireless technology, or mobile cellular. They are particularly well suited to point to multi-point (and vice versa) applications where many users are widely dispersed and for mobile and fixed users requiring reliable services without geographic or terrain restrictions.

Despite initial skepticism, satellites have now become a widely accepted vehicle to provide virtually "instant" networks for business and entertainment broadcasting applications, including direct to private homes. In many respects, Australia led the way with its outback Homestead and Community Broadcasting Satellite Service that began on the AUSSAT system a decade ago.

But satellites are often forgotten when it comes to debate about the so-called "information superhighway." The purpose of this article is to shed some light on recent developments that could lead to satellites providing broadband "information skyways" direct to homes and businesses spanning the globe. This may actually happen before much of the world's population gets within cooee of terrestrial fibre.

Although it would not seem immediately obvious in Australia now, a quiet revolution is taking place in the satellite communications industry worldwide. Apart from the range of new creative ventures and changing business support relationships that have emerged recently, there is an increasing awareness of satellite system solutions. More bandwidth is being made accessible by more people in more places than ever before.

Apart from the new generation of global mobile personal communication satellite systems (such as Iridium, Globalstar and Odyssey) which promise to support levels of mobility ranging from local to global, new satellites are presently being designed to be capable of the advanced features of fibre and wired networks, and more. These systems avoid the extensive terrestrial infrastructure associated with cables. They are capable of providing ubiquitous coverage the day they are brought on stream and will bring broadband services associated with high capacity optical fibre to users at a fraction of the cost and in far less time. Some are proposed to be in place by the end of this decade.

By contrast, attempts to bring interactive broadband services to the home via fibre are only just beginning. In many countries, access will not be available to many areas until well into the next century at estimated costs of hundreds of billions of dollars.

The Information Superhighway

The "Information Superhighway" concept erroneously suggests a concept that is purely land-based, such as fibre. Satellites, however, are already playing a major role in the global information infrastructure and are destined to play an even greater role in future. There are several reasons why I believe this will happen.

First, they will play an increasingly important, complementary role to terrestrial fibre and wireless delivery systems. Secondly, it seems likely that they will be able to fulfil universal access policies. Importantly, satellites are acting as a catalyst to reduce, if not eliminate, the historic barriers between the different segments of the communications supply industry and many of the traditional regulatory barriers that have restrained the development of competitive international telecommunications.

Finally, the satellite industry is experiencing unprecedented growth, particularly in the Asia-Pacific region. Some industry predictions suggest up to 300 new commercial geostationary satellites will be launched worldwide between now and the year 2000. This represents hundreds of billions of investment dollars, and that does not include the two hundred or so medium and low earth orbiting satellites that are also expected to be deployed by then. Hughes, the largest manufacturer of commercial satellites, believes it will be more like a 'wireless expressway'. Ninety-five satellites have been ordered or are expected to be ordered for Asia-Pacific region alone, representing some US$10B worth of business.

Whether all these systems make it to orbit, or successfully reach their market niche, remains to be seen, but I, for one, plan to be watching closely.

Internet - a key driver

What is causing this rush to orbit that some have compared to the great Oklahoma Land Rush of the 1800s? It is not surprising that many of the industry drivers for these new systems are similar to the Internet model, i.e. personal and direct communication with individuals, being made possible by similar advances in digital electronics that have made the exponential rise in affordable, personal computing possible. The exploding interest in Internet, and in particular the potential of the World Wide Web, indicate that people want to interact with data, still images, sound and full-speed video.

And now, introducing the Information Superskyway

If only a few of the current new satellite technology proposals succeed, there will be a significant increase in telecommunications capacity in space over Australia by early next century. This will support a wide range of services from low speed data to broadband to the desktop to millions of users, on demand, worldwide.

No doubt this will happen irrespective of whether Australian parties decide to become involved or not.

Although a couple of the original proposals for global mobile personal communications satellite (GMPCS) voice services are in financial difficulty, several have now developed beyond the concept stage and have attracted worldwide attention and substantial investments, despite initial industry doubts. Iridium has its satellites under construction now and will commence launching them later this year. Similarly, Globalstar and ICO-Global seem well advanced. Odyssey plans to announce its investors soon. They have been joined by several ambitious regional mobile geostationary satellite proposals such as APMT, ACeS, Afro-Asian and Satphone. Several of these systems have investors and industrial partners with impeccable credentials and will probably succeed. Two way global low-speed data messaging and tracking has already begun with systems such as Orbcomm and GE Starsys implementing large constellations of satellites over the next three years.

The new round of global and regional broadband systems has generated even more frantic attention in international regulatory circles, driven by the need for additional global spectrum to be assigned to these systems. These systems promise to extend the concept of any person, anytime, anywhere communications -- the goal of the GMPCS -- to broadband communications in the fixed satellite service.

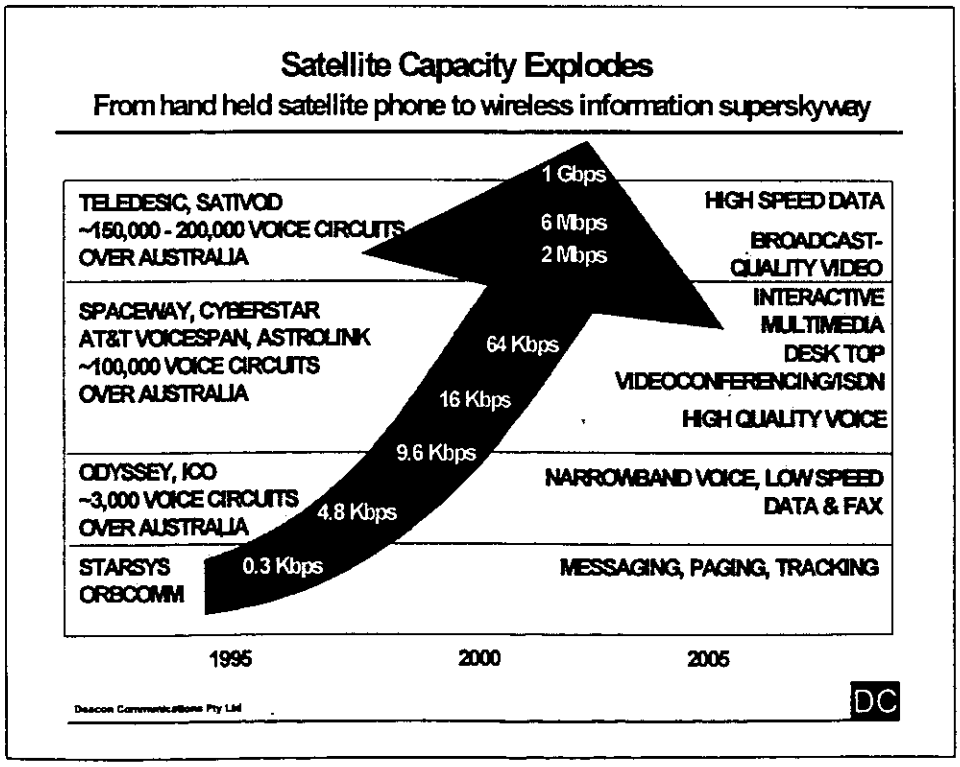
Ka-band has been identified as having the most suitable characteristics for providing interactive high speed data to small (66cm and larger), low cost terminals as it permits higher maximum data rates (of several Gbps) than C or Ku band. It is probably more sensible to describe these systems as multimedia satellite systems as service data rates typically from 16kBps to 8Mbps (and higher) are planned. Broadband satellites will allow symmetric and asymmetric data communications; depending on the customer application and antenna size, this will support a broad range of applications.

Also the capacity of these systems may be reused many times and spectrum shared between several satellite systems providing multiple access for millions of users worldwide.

Broadband satellite systems will support dynamic allocation of satellite resources and bandwidth on demand. Fibre networks, by comparison, can have huge quantities of unused bandwidth lying fallow in the form of dark fibres routed past homes of consumers whose needs may be met by only a small fraction of the total potential bandwidth at their disposal.

The idea of an integrated terminal in every home, offering telephone, data, TV, interactive video, computer links, etc. is no longer regarded as fantasy.

With the capability of broadband satellites to provide bandwidth on demand, consumers will experience the reality of multimedia convergence at a



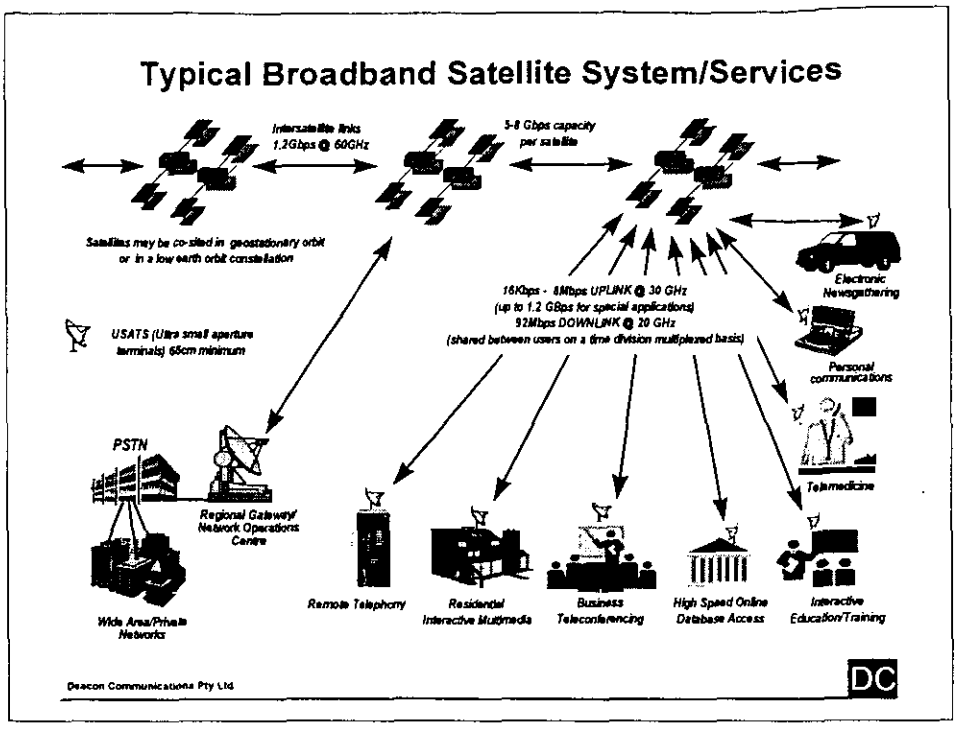
relatively low capital cost per location served. These systems will afford new efficiencies on a competitive, consumer oriented basis. Greater flexibility will be achieved by providing semi-fixed and fixed public and private access virtually anywhere on the earth.

Individual users, for example, will be able to use the systems for basic telephony and data communications. Low end terminals could be a desktop package similar to Hughes DirecPC or DirecTV consisting of a PC port and a video port typically supporting up to 10Mbps connections. Depending on the bandwidth selected and the size of antenna, the satellites can also provide multicasting of specialised news and financial information; personal communications such as e-mail, faxes, chatrooms and interactive services such as personal video-telephony and high speed PC access to Internet; pay per use video services, entertainment and information multimedia services to millions of end users.

Business users will be able to put these new capabilities to an equally wide range of applications including video-conferencing, training and educational services; medical and technical imaging, and data services such as those now carried on present generation VSAT networks. They will extend the present-day VSAT technology to businesses whose communications needs are not sufficiently large to justify access to a Ku-band VSAT network and to "desktop" USATs (ultra-small aperture satellite terminals) based on "Plug n Play" PC cards connecting individuals to information service providers. Business terminals may have the option of ATM up to say 40 or 50 Mbps (70cm or larger).

These services can potentially be provided to every person in the world, whether in urban or remote regions and can be used in lesser developed countries as a substitute for scarce basic telephone facilities.

Some of the services envisaged are already here! Only this month a new fast Internet computer networking service called Cyber City was announced in Israel for service via the Amos-1 satellite in Eastern Europe. The system is capable of providing data direct to users with an installed personal computer card and a 60cm dish antenna to receive data at 40 Mbps. The same dish will also enable customers to receive television services. Compressed digital movies that normally take over an hour to download over ISDN circuits are reported to take only two minutes on this system.



Brought to you live via Global Broadband Satellites

Several hundred satellites have been notified to the International Telecommunication Union for use of the Ka Band. The geostationary systems consist of an interconnected series of regional networks based on spacecraft clustered in several orbital slots with coverage selectively tailored to market requirements. Some systems, for example, plan to cover only the world's land masses. Others plan to cover particular regions they believe to be the most attractive from a market perspective and have decided to ignore Australia. Lets look briefly at some of the *global* proposals.

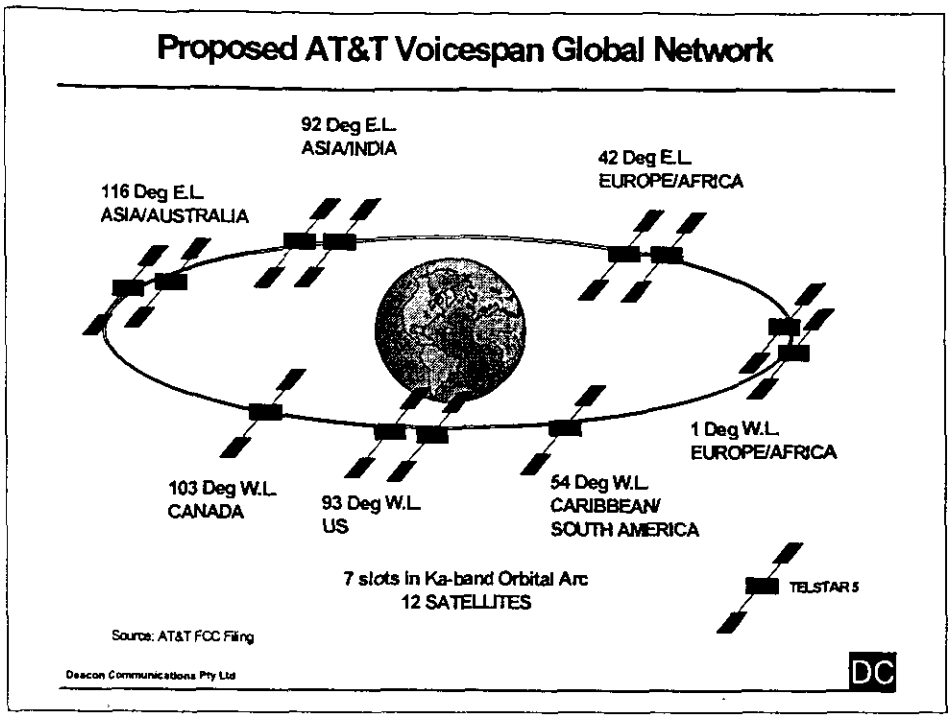
Voicespan has been proposed by AT&T as a global network of twelve geostationary satellites in seven different orbital positions, including two over Asia and Australia. AT&T plans to launch the first *Voicespan* satellite in 2000, with services at speeds ranging from 32 Kbps to 1.5 Mbps.

Lockheed Martin is seeking to establish a US$4b global system of nine interconnected Ka-band satellites located at five geostationary slots. The *Astrolink* system would be capable of providing users access to two-way digital services such as voice, data and video at transmission speeds ranging from 16Kbps to 8.448 Mbps and above. Lockheed Martin believes their system, when layered on top of a hybrid wired/wireless terrestrial infrastructure, can serve the needs of medium to high bandwidth users anytime, anyplace, for a fraction of the cost of existing or planned infrastructures. The company envisages applications such as digital communications services in the fields of training, telecommuting, distance learning, transaction processing, personal computer Internet access, smart building monitoring and telemedicine, at a quality which will equal or surpass fibre.

*GE*Star* is a US$4b worldwide Ka-band system that has been proposed by GE American Communications. It will consist of nine geostationary satellites at five orbital slots. Services proposed include high speed data trunking or home-use multimedia, interactive business data applications suitcase-sized portable digital satellite newsgathering and video/audio applications for entertainment.

Hughes Communications *Spaceway* has been proposed as a combined voice, data, and videotelephony platform with a fleet of 15 satellites offering coverage of most of the world's populated regions. Hughes estimates the cost of the system as between US$3 - 5 billion, depending on the configuration of the system.

Loral is proposing to establish a US$1.05 billion broadband satellite system using three interconnected Ka-band GEO satellites to deliver two-way entertainment and information



services to home and business customers in North America, Europe, the Middle East and Asia. Loral plans to commence services in 1999 by taking a three-satellite scalable approach. *Cyberstar* will target customers who have a high demand for broadband services but are unpassed by existing terrestrial based infrastructure, with an integrated package of interactive information services and entertainment.

Morning Star Satellite Co. proposes to use four orbital slots to locate four hybrid Ku/Ka band satellites at a total cost of US$820m.

In contrast to most other Ka-band plans, *Teledesic* plans to establish a global constellation of 840 low earth orbit satellites. They claim this will have the advantage of providing earth-satellite response delays as short as those experienced by use of fibre optic transmission systems. Seamless interaction with terrestrial networks is a key aspect of the US$9b *Teledesic* proposal, which has been backed by Bill Gates and Craig McCaw. The project plans to provide everything from Internet data transfers to multimedia and videoconferencing, with transmission speeds ranging from 16 Kbps to 2 Mbps. The system is scheduled to be launched from 2001-2003.

As this goes to press, *Teledesic* continues to look even more real. The company recently hired one of the developers of the Internet architecture and is reported to have appointed launch procurement staff from the Iridium project. Initial commercial partners (i.e.telecoms service providers) are expected to be announced in the next few months.

Building on their experience with development of the *Globalstar* spacecraft, Alcatel Espace has proposed *Sativod*, a 60 satellite LEO constellation, as a broadband solution that will directly compete with *Teledesic*.

A summary of the global broadband systems proposed is shown at Table 1.

Regulatory nightmare or regulatory challenge?

In some ways, the regulatory difficulties associated with the new breed of stationary coverage broadband satellites may not be as difficult to resolve as the present round of applicants for global mobile services. The reason for this is that the global mobile satellite systems will permit handheld terminals capable of roaming through countries worldwide as well as some fixed terminal access, whereas the global broadband systems are generally based purely on fixed terminal access, which administrations would find easier to license.

Moreover, because of their orbital characteristics, the GMPCS systems cannot prevent their satellites overflying countries that prohibit access. Some operators, however, plan to selectively switch off certain coverage beams in these circumstances. It will be interesting to see whether this actually takes place, in practice, as there will be a major business incentive to provide "incidental" coverage (as for regional satellite TV and Direct-to-home services) and to rely on individual countries to police access, if necessary, via terminal licensing.

GMPCS operators seeking to cooperate in pushing for an open market environment recently reached a rapprochement. They will seek the support of national regulatory agencies in not awarding exclusive licences and facilitating non-discriminatory, cost based, interconnection to terrestrial networks and roaming arrangements.

It is expected that some guidelines for GMPCS systems will emerge from an ITU Policy Forum to be held in Geneva in October. While agreements there will be non-binding, they may provide some pointers for those who will need to establish suitable regulatory arrangements for the fixed broadband systems which will be launched around the same time as the global mobile satellite constellations.

Most countries have yet to determine how they will allocate scarce spectrum resources to multiple licensees (of mobile and fixed global systems) and some inconsistencies are already evident. Recent record prices have been paid for attractive domestic orbital slots in the US, while others have effectively gained free access to huge amounts of spectrum available worldwide. The global systems may benefit from the US FCC's view that spectrum auctions will likely not apply, although the Australian Government has yet to announce any formal policy. The geostationary broadband operators may not be as lucky.

As in the case of the global mobile satellites, I believe the international regulatory arrangements or "rules of the road" for global broadband satellites will probably cause the biggest policy debate. I do not think the technology or the "software" will be major hurdles.

Conclusion (or, "and now a word from our sponsor")

It is evident that many well-established telecommunications organisations (such as AT&T, GE, SES/ASTRA, Alcatel, Motorola, Orion, Hughes Communications, MCI, Singapore Telecom, Pacifik Satellit Nusantara and others) are presently crafting their international strategies to capitalise on new digital broadband

Table 1: Summary of Global Ka-band (broadband) satellite proposals

System	Company	No. of satellites	No. of orbital locations	User Data Rates	Capacity per satellite	Deployment Period	System Cost (US$B)
Astrolink	Lockheed Martin	9	5	16-8448 Kbps	7.7Gbps	2000 - 2003	$3.994
Spaceway	Hughes Comm. Galaxy	20	15	16-6000 Kbps	4.4Gbps	1999 - 2005	$5.171
VoiceSpan	AT&T	12+4 spare	7	32-1544 Kbps	5.9Gbps	2000 - 2002	?
GE*Star	GE Americom	9	5	384 kbps-40Mbps	1.8 Gbps	2000 - 2005	?
Morning Star	Morning Star	4	4	Fwd: 30 Mbps Rtn: 65 Kbps	625Mbps	2000 -	$0.823
CyberStar	Loral	3+1 spare	3	384 -3088 Kbps	4.9 Gbps	2000 - 2003	$1.050
Teledesic Network	Teledesic	840	LEO	16 - 2048 Kbps. Up to 1.244 Gbps	5 Gbps	2001 - 2002	$9.004
Sativod	Alcatel Espace	60	LEO	Broadband data & video	?	2001 - 2002	$3

information and entertainment satellite services. New ventures and partnerships are being announced every day.

As far as I can determine, Australia has yet to stake a strategic claim on these developments. Some proposals have coverage of Australia in their plans, while some potential operators have ignored the Australian market completely. Is it possibly because they perceive little interest on the part of carriers and other potential investors in Australia, or are they not convinced there is a sufficient market here for multimedia services? Given Australia's strong IT record, and the global market opportunities provided by these satellite developments, I would have thought interest would have been stronger, particularly from those organisations seeking to become global information service providers.

Whether Australia's carriers, policymakers, regulators and users will be positioned in sufficient time to take advantage of the inevitable availability of bandwidth and capacity that will emerge around 2000, has yet to be determined. What is clear is that strategic investment decisions for systems such as Teledesic, Astrolink and Spaceway will be well advanced (if not concluded) by the end of this year. Australia could end up being serviced by offshore interests, or even worse, ignored altogether.

Australia could significantly advance its commercial interests in the Asia-Pacific region, by doing more than simply playing a reactive role. This is particularly valid in the context of the global focus that the 2000 Olympics will provide. We are particularly well positioned, both geographically and with respect to the relative depth and sophistication of our telecommunications and supporting industries to be a gateway and service supplier, and to support regional marketing and distribution. We also have a sound understanding of the regulatory and political hurdles that would bar service providers from outside the region.

It seems that the USO problem in Australia will finally be addressed soon, almost certainly with space-based technology playing a major role; but the question remains - by whom? No doubt this will continue to be an issue of hot debate.

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Chris Deacon is the Managing Director of Deacon Communications, Canberra. Chris has been under contract to Telstra's Satellite Strategy Group. The views expressed here are his own.

Preserving and Re-shaping the ABC

Brian Johns emphasizes the ongoing importance of the ABC and gives his thoughts on the ABC's response to budgetary constraints.

Changes in broadcasting are occurring so fast that it is difficult for public policy makers to find the balance between the response to new opportunities and the preservation of valued traditions. It is a testing environment. If the ABC is to continue to be relevant to Australia, it must confront that environment.

Undoubtedly there is widespread public support for the ABC, even amongst people who say they do not regularly watch or listen to its services. According to the latest AGB McNair poll, 61% support maintenance of ABC funding; and another 24% support an increase in funding. The message is clear - it is good to have the ABC, and it needs to be funded.

Overseas experience

Look at what has happened overseas. For a while, the debate was swinging against public broadcasting in the public policy climate which emphasised small government, privatisation and financial accountability. But more recently, the idea of public broadcasting has undergone a resurgence.

The BBC has had both its Charter and its guaranteed funding extended to the year 2007. With the firm backing of Parliament, it has been able to position itself for conversion to digital technology and all the opportunities made possible by that.

In the United States, the public broadcasting system - relatively small by our standards - is to benefit from the establishment of a trust fund between one and three billion dollars.

The environment here is yet to turn. But turn it must.

Pressures on the ABC

Overall Australian commercial television channels increased their profit by almost twenty per cent in the year 1994-1995. The commercial stations have access to capital to invest in their future. But the ABC has a declining real funding base and the present atmosphere is ominous. The ABC faces the possibility of substantial further cuts - cuts which could undermine the foundation of public broadcasting as we have known it.

Notwithstanding those external pressures, the ABC accepts - in fact embraces - the inevitability of radical change. Change must occur to ensure that the ABC maintains a central role in Australian cultural life.

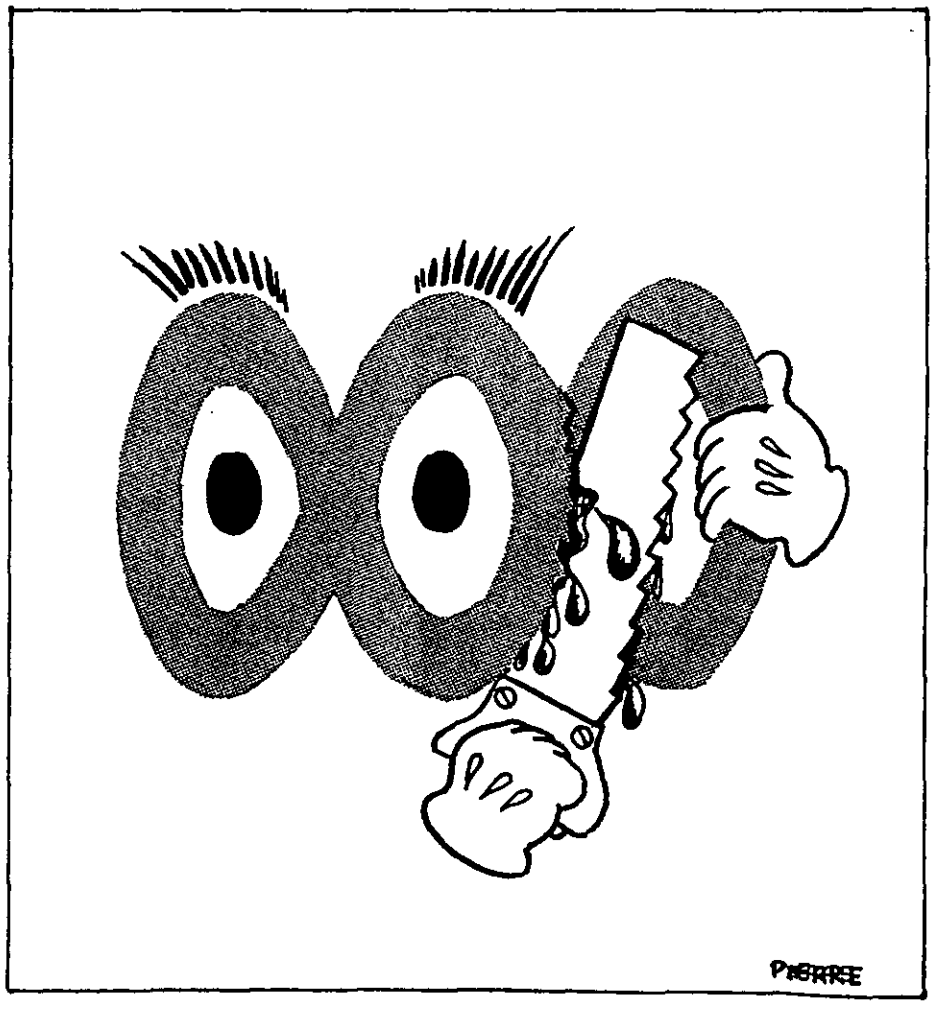
Recently, the report of the National Commission of Audit raised important issues of public management. The report included specific references to the ABC - which are either misleading or misinformed.

Let's look at the bottom line of the National Commission of Audit's agenda for change if implemented and applied to the ABC. It calls for savings of between ten and twenty per cent from Commonwealth organisations over three years where: 'Rationalisation, the broader application of management tools, and the capacity to reduce complexity will deliver large gains'.

What would that mean for the ABC if implemented? The twenty per cent cut over three years:

- represents about $106 million per year at the end of three years;
- in isolation, it is more than sixty per cent of the total budget of ABC radio;
- or, just under forty per cent of ABC Television;
- or, more than three times the level of funding to the six symphony orchestras.

A ten per cent cut over three years would be around $53 million per year at the end of three years.



Financial targets of this magnitude would have little to do with improving efficiency and accountability. They would reflect an ideological or political position to fundamentally challenge the status and role of public broadcasting as we have known it in this country. They would undermine the foundation of an Australian public policy tradition.

Policy issues

Over the years, communications policy in Australia has struck a reasonable balance between social and economic objectives. It has taken into account access in a vast continent, diversity of services and industry opportunities. There is no reason why, today, we cannot continue to find our own solutions and set out own agenda in Australia.

But not as far as the National Commission of Audit is concerned. It also proposes that public broadcasting be structured and funded as a purchaser-provider model, a model taken from elsewhere.

Under this model, the funding agency and the service provider are separate. In this case, the service provider would be the ABC. The Commission says:

'Funding of specific categories of public broadcasting could be allocated to broadcasters on a contestable basis or tied to the ABC.'

If done on a 'contestable basis', the ABC would bid for money, alongside other broadcasters and program providers. If tied to the ABC, it would be on a prescriptive basis - defining program genres, hours of broadcast and costs.

This raises the very serious issue of program diversity. It is likely that programs would become homogenised, whether produced by public or private broadcasters. And it raises an even more fundamental question about the ABC's role as a major provider of news and a broad range of information programming.

Accountability

This is an approach which confuses the issues of independence and accountability - both prerequisites for effective public broadcasting. If the Government specifies program activities, then the ABC becomes an agency of government. On the other hand, if a new agency is set up to dispense the funding, it may usurp or duplicate the role of the ABC Board. The issue of accountability is really quite different.

Central to the model I am talking about is the question of what the public broadcaster, acting alone, does with the public money at its disposal. My response is that the ABC does not act in isolation or without public accountability. It does not take on major new initiatives - for example, pay TV - without the endorsement of Government and the Parliament.

Accountability begins with the ABC Charter - a good and relevant document, enabling rather than prescriptive. It gives use the space to do what is expected of us. To be innovative and to adapt to changing audience needs.

The experience in New Zealand

We must not simply borrow foreign concepts of public broadcasting, concepts which have proved to be badly flawed. Why do we need someone else's model? Can't we set out own agenda?

The purchaser-provider model, proposed by the National Commission of Audit, has been applied in New Zealand. Licence fees are paid to a public agency called New Zealand on Air. The agency then decides which production activity it will support financially, based on competitive submissions from public and private sector entities.

Around 40 public radio stations in New Zealand have been privatised, leaving a small rump of the former Radio New Zealand to satisfy community service obligations.

For some years, Television New Zealand has been operating as a successful commercial business. But take note:

- the local content level on TVNZ is a low twenty three per cent, the rest being imported programming; and
- more than twenty five per cent of TVNZ prime time is taken up by advertising, significantly more than the ratio of ads on Australian commercial channels.

On ABC Radio a week ago, Dr Denis Dutton, a member of the Radio New Zealand Board said that New Zealand has 'the most degraded television in the English-speaking world.'

The role of the ABC

Survival of the ABC goes to the heart of the public interest debate. The public broadcaster offers:

- editorial independence from vested interests;
- a commercial-free zone;
- commitment to both the nation and the diverse local communities which make up the nation;
- quality Australian content amid the rising flow of foreign programs; and
- an industry platform to support innovation and creative programming for use here and overseas.

The ABC's role is all the more critical at a time of globalisation and concentration of media ownership. I have always argued that it is the most important media and cultural institution in the country.

Transforming and re-shaping the ABC

In order to maintain its position and remain relevant, the ABC needs to be transformed and re-shaped. A complex task: the stakes are high and it needs to be a very deliberate and careful process. It is not a construction or furniture business. Solutions that might work in manufacturing cannot be expected to work for the ABC.

The gateway to re-shaping has been opened by an historic Enterprise Framework Agreement negotiated between the ABC and the unions. It provides the basis for a true partnership, which is necessary given that every part of the ABC, and every individual, will be affected. It is more than an enterprise agreement - it is the way ahead for the ABC in a four-year process of restructuring which requires the active engagement of all parties.

We intend to have marked the signposts of transformation in the coming months. I have told staff what I would like us to achieve and it is broadly this.

I would like the ABC to become a far more modern, responsive and flexible organisation than it is today. It is premature for me to identify likely management structures, but I do want to

see a flatter structure focussed around program functions. And inevitably, a tighter organisation. But everything we do must support the primary role of the ABC, offering quality Australian programming.

For the past decade, the ABC has been organised into distinct operational divisions - Television, Radio, Radio Australia, Concert Music and Corporate.

The first element of re-shaping is to acknowledge the ABC's responsibility as the national public broadcaster within a federal system. The ABC must strengthen its presence in centres outside Sydney and Melbourne, taking into account regional and state diversity. I want to see a devolution of certain functions as well as decentralisation. And further development of the idea of centres of excellence. Current examples include Perth as the centre for TV children's drama, Melbourne for comedy and natural history, and so on. But we can also think about shifting corporate functions or technology functions, as well as production.

We need to decentralise the management prerogative to give the branches more power to harness local energy and to deliver services or relevance. Therefore, I see Sydney having a co-ordinating rather than controlling role.

ABC Radio has an extensive presence throughout regional Australia while Television is confined pretty much to the metropolitan centres. It makes sense to extend television coverage, making greater use of the forty-nine regional radio locations around the country. Underlying this is a bi-media approach. However, I am not talking about a return to the days before the media split.

Other opportunities for a bi-media approach might include some specialist program areas, for example, education. They might also include support services and certain management functions. There may be different solutions to satisfy different ends. What works for Perth may not work in Hobart. The Enterprise Agreement has given the ABC the flexibility to come up with local agreements.

Let me make it clear that any bi-media approach is not designed to be a drain on ABC Radio. I am sensitive to Radio's resource constraints. Clearly, there are challenges because the output is now stretched far too thinly. Radio must re-focus its network and programming strategies to ensure it delivers quality and relevance. Broadly the options being considered fall into two categories: program change within the existing network structure; and change to both the configuration of the networks and programming.

ABC Television is committed to reversing the downward trend in Australian content. A local content level of sixty five per cent is the aim for the year 2000. But it has to be quality as well as quantity. ABC Television must be clearly differentiated as the home of quality. It must be a powerhouse of Australian content:

- diverse in its gathering of news and information;
- open in the presentation of opinion and debate;
- relevant; and
- supportive of established and emerging talent.

How will ABC Television generate the quality and the quantity? We need to examine options for structural change, among them increased outsourcing of television programs. There has been speculation that the ABC might adopt the so-called Channel Four model, outsourcing all programming. I cannot envisage a time when the ABC would cease to produce its own news and current affairs.

We are not simply going to adopt someone else's model. Whatever we do, it will involve substantial change. We will work through it carefully and deliberately in consultation with unions and staff.

ABC Television also needs to keep in mind its role in offering creative infrastructure for Australia's independent production sector. Almost all drama series, and many feature programs, are not developed as co-productions.

Another key feature of the landscape that I see ahead is the maintenance of the commercial-free zone in domestic radio and television services. In every poll that has ever been done asking the question about advertising and the ABC, Australians make it clear they do not want it.

I would like to see the ABC diversify its sources of program funding. Already, for example, we have a relationship with Film Victoria to collaborate in the production of programs, including short dramas and feature films. We should be looking for more opportunities like that given our role in the creative community. We need to broaden relationships with other creative and cultural organisations.

I see an ABC which continues to build support for the symphony orchestras, welcoming increased involvement of State Governments. Encouraging their development, not impeding it.

Conclusion

We are undergoing a transformation to take the ABC into the 21st century in every respect. Our ability to deliver the transformation depends on a stable funding base from the Parliament. But it also depends on galvanising our own people from the top down. There is an appetite for change throughout the organisation and we have now established a framework for it. The process must be careful because there are so many stakeholders - we need to take them along with us. But as far as I am concerned, the process has begun. There is no turning back.

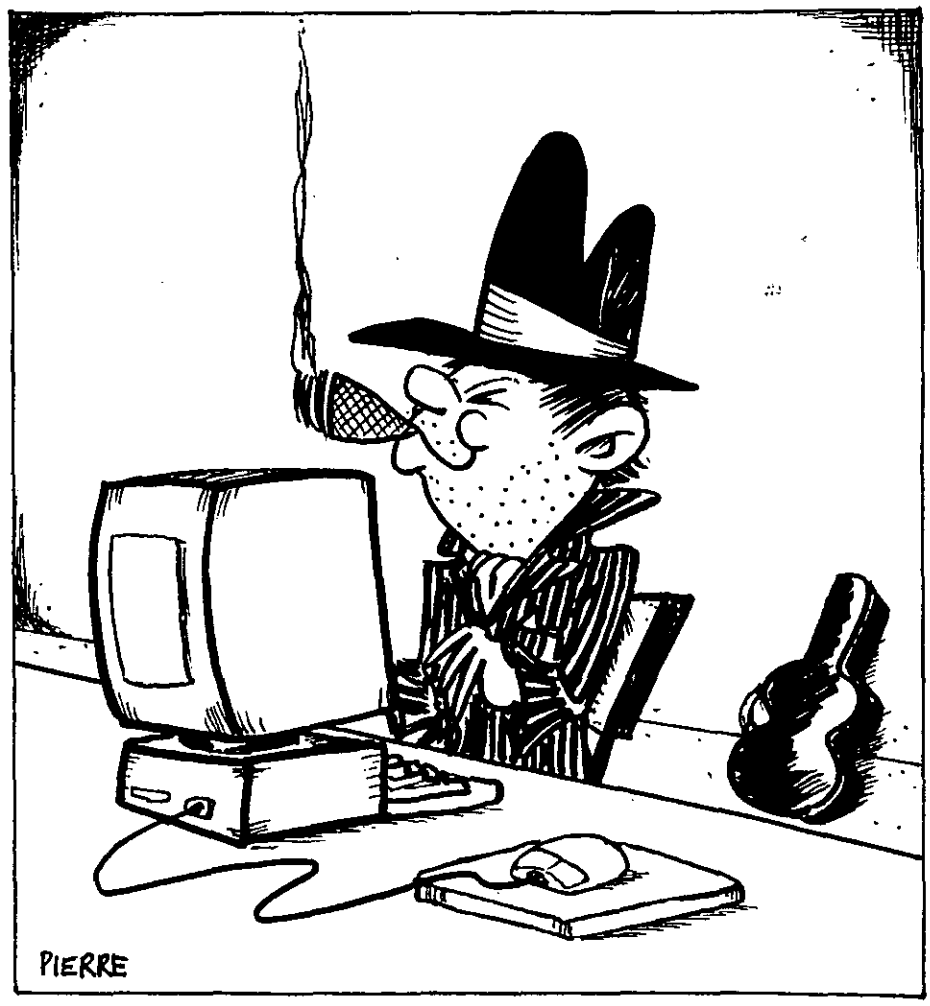
Brian Johns is the Managing Director of the ABC. This is an edited version of the speech presented to a CAMLA lunch in Sydney on 10 July 1996.

Convergence Towards the Millenium: Meeting the Challenges to Global Electronic Commerce

Diana Sharpe outlines some of the major issues challenging the development of legal and commercial rules for global electronic commerce and profiles some of the initiatives aimed at meeting the challenges.

The use of the Internet in electronic commerce is beset by a number of challenges and obstacles. There is no global business or legal structure to sustain a global electronic marketplace and ensure the security and privacy of transactions. There are no consistent business standards and practices for electronic commerce. The difficulty of addressing the challenges is heightened by the absence of a global forum for coordination and policy development.

The need for appropriate legal and commercial rules to support the use of the Internet is recognised and around the globe organisations are responding to the need to resolve the issues and remove the obstacles.



Major challenges to the use of the Internet in Global Electronic Commerce

Security and privacy issues

Commerce on the Net is an extremely complex topic for consumer protection, particularly when merchants, financial institutions, service providers and clients may be located in different states or nations. It can involve problems with client privacy, intellectual privacy, intellectual property, censorship, fraud and international money transfers.

There must be a basis for the trust that organisations place in commercial communication mechanisms. In some cases a level of security is built into the process: for example, by placing a document in a sealed envelope, the confidentiality of the information is considered to be maintained.

The knowledge that a mechanism is weak does not prevent its widespread adoption. The fax is an inadequate mechanism for commerce - there is no real authentication of the origin or destination, or any inbuilt confidentiality. However, its ease of use, instantaneous nature and obvious security benefits over the telephone (in that at least a hard copy is received) have meant that it has become widespread as a means of transacting business.

Some forms of open communication offer the same promise - Internet electronic mail has become widespread for all the same reasons: it is easy to use, inexpensive, widely accessible and offers soft-copy benefits over fax. It will, therefore, become widely used for electronic commerce, regardless of whether or not the security mechanisms are appropriate.

The introduction of electronic commerce is presumed to imply efficiency gains, increased competitiveness and opportunities for growth. This is why it receives government endorsement. The challenge is to provide security structures that enable all enterprises, whether large or small, to participate with confidence without affecting the accessibility and ease of use of the technology. Without these structures, uncertainty and mistrust will delay the adoption of the

mechanisms and all the threads of the fabric of commercial relationships will be weakened.

If electronic commerce is to make rapid inroads into business, it is essential that standards emerge rapidly, whether they be de-facto, through market dominance of one player, or through the national and internal standards bodies.

The uncertain legal status of message security mechanisms, such as digital signatures, is often quoted as a barrier to usage. It is true that it may take many years for unambiguous precedents to emerge or legislation to be enacted, but this should not be an impediment to electronic commerce. The law is not an instrument of technological change; it follows technology and serves the users as best it can, adapting in various ways as the new challenges emerge.

Computer crime

In recent years there has been a growing concern in many developed countries at the tide of computer-based or computer-enabled crime that threatens to wash over the world. In 1995 I undertook a review of the computer crime legislation in eleven countries in the Asian region and found that of those eleven only two had legislation remotely regarded as satisfactory. Since then, Japan and Korea have to a certain extent advanced their legislative regime. Australia is making progress, but in New Zealand computer crime is rarely reported, much less prosecuted.

In the meantime, fraud is rife. In Australia, some of the country's largest companies have been penetrated by organised crime resulting in the theft of millions of dollars through computer fraud. This could be as much as 10% of profits. In Britain and the USA, over eight out of ten major companies in these jurisdictions report big increases in fraud over the last five years. The cause is not always hacking as such but more a weakness in the general business transactions which are readily exploited. Most companies are reluctant to prosecute because they do not want embarassing publicity. Most cases exposed are database frauds, and misappropriation of stock which is hidden within the computer system. The technology which facilitates fraud also brings advances in detection methods but internal controls will only work if senior managers educate themselves about new technology. There are three parts to providing an effect strategy against fraud: discovery, correction and prevention, the latter being the most important.

Encryption

There has been much heated debate worldwide about restrictions on the use of encryption technology, so that law enforcement and national security agencies can continue to intercept communications. Two questions are worth asking in this debate.

Firs, is interception of private communication a governmental right, which must therefore be protected in the face of technological change, or is it an accidental consequence of the weaknesses of the communication techniques that we have been using? Some commentators argue that it is the latter and that there is no community obligation to protect it.

Secondly, is a country better served by a vibrant, efficient, electronic economy, using trusted secure communication techniques for its day to day business, or by attempting to reduce organised crime by restricting use of technology? So far, much of the opposition to restrictions on the use of encryption technology has centred around a right to privacy and civil libertarian issues. Perhaps, instead, we need to quantify the opportunity cost, in economic terms, of delayed and lower levels of adoption of electronic commerce by the business community because the security mechanisms are not sufficiently trustworthy. It may be that the cost to the economy of restricting the use of encryption technology outweighs the benefits to the community.

Intellectual Property

Intellectual property issues are certainly high on the list of concerns in an electronic environment. The ownership of images and text on the super highway has yet to be clarified. Does copyright still apply when the content has been altered, manipulated or adapted? The allocation of rights between the content creator and the content packager needs to be determined, as do various forms of transmission rights and usage rights. Policy makers are already grappling with issues relating to content. The information super highway has great potential to increase access to information and commercial resources that can be delivered quickly and economically; however, its potential will never be realised if products are not protected whilst being carried on the networks. Likewise, the public will not use the services available and generate the market necessary for its success unless access to a wide variety of works is provided under reasonable terms and conditions.

In the United States, the Department of Commerce has produced a White Paper report on intellectual property rights which attempts to assist the information resources of tomorrow and address how the rights of providers and users can be thoroughly protected. In Australia, there is now some prospect that the process of intellectual property review may all come together in the overall review being conducted by the Copyright Law Review Committee.

Meeting the challenges

The Internet Law and Policy Forum (ILPF)

The ILPF is a global non-governmental organisation sponsored by the major commercial stake holders of the Internet. It will be dedicated to resolving issues of importance to the use of the Internet for electronic commerce transactions, endeavouring to produce uniform solutions acceptable to a global Internet community - solutions which advance self-regulation and accelerated growth.

The Forum is intended to serve as a compelling alternative to inconsistent government regulation, by addressing issues which are difficult, if not impossible to resolve on a national or regional level: security, intellectual property, digital records management and access, jurisdiction, taxation, privacy, electronic payment and transactions, and the resolution of Internet disputes.

The ILPF will endeavour to develop suitable tools for achieving best business practices and resolving the legal aspects of electronic commerce and internetworking, including:

- uniform definition
- recommended business practices
- model agreements
- model national laws including statutes and administrative regulation

- codes of conduct
- codes of information practices
- treaties or conventions.

The IPLF will:

- promote policy dialogue and informed government reforms in partnership with business by establishing a clearing house of information involving laws, regulations and electronic commercial practices; and
- educate government on emerging uses, commercial practices and social ethics and the related work products of the Forum.

It will also facilitate the emergence of an efficient and predictable marketplace in which electronic commerce may advance by minimising legal uncertainties requiring resolution by litigation and maximising the return on investments for new infrastructure content and technology.

Global Information Infrastructure Commission (GIIC)

The mission of the GIIC is 'to force private sector leadership and private-public sector co-operation in the development of information, networks and services to advance global economic growth, education and quality of life'.

The GIIC is an independent, non-Governmental initiative involving diverse communications-related industrial leaders from developing as well as industrialised countries. The Commission has been established to respond to the recognition that traditional institutions and regulatory frameworks can no longer meet the increasingly complex challenges and opportunities of globalised information. Three factors stand out:

- the burden and opportunities of work developing the global information infrastructure are shifting away from governments to the private sector;
- developing as well as industrialised countries have a high stake in information infrastructure development;
- the policy challenges, as well as the market for information infrastructure, are becoming global in scope.

The GIIC was inaugurated in July 1995 at a meeting hosted by the World Bank and has a three year mandate. Unlike many such bodies the GIIC is committed to work with existing institutions and organisations as well as to facilitate new initiatives. Most of its activities will be undertaken in direct co-operation with others, including the ILPF. Its goals include the facilitation of activities and identification of policy options which foster the effective global application of telecommunications, broadcasting and information technologies and services. It has identified 5 major areas of focus: Commerce, Banking & Finance, Publishing, Education and Health Services, and has established working committees in each field.

OECD

In March 1996, the OECD established the Group of Experts on Security, Privacy and Intellectual Property Protection in the Global Information Infrastructure. This group will advance work already started on the standardisation of cryptography and work towards an international agreement on the role of government in public key encryption.

Australian Law Reform Commission (ALRC)

The ALRC was due to submit its report on Legal Remedies and Cross-border Transactions in July 1996. The report will have particular focus on remedy issues raised by the recent growth of international financial markets, the developments in electronic banking and clearing systems and bank secrecy. Part of the ALRC's brief is to examine issues of trade, intellectual property and regional regulatory harmonisation.

Strategic alliances

Hardly a day goes by without an announcement of, or speculation about, strategic mergers between companies in what used to be separate industry sectors. Many industry participants which, only a year ago, appeared to be unassailable are now rushing to catch up with these developments.

A recent example is the announcement by BeriFone, a Californian developer of electronic payment systems, that it will join NetScape, maker of the popular navigator WebBrowser, to develop a way to make electronic payments on the Internet more secure. Their stated objective is to develop a new system to accelerate acceptance of the Internet as a mainstream vehicle for commerce. These are only two of the many companies working with this objective. Credit card giants Master Card International and Visa International have stated that they have agreed on a joint technical standard which will allow for secure purchases over open computer networks. It is clear that this subject is not only timely, but that the issues to be raised should not be addressed in isolation.

International

Australia has been examining the challenges and opportunities posed by the rapid evolution of the Information Superhighway for some time. A number of expert groups have identified and worked through many of the issues, including the Bureau of Transport and Communication Economics (1993/94), the Australian Science and Technology Counsel (1993) and the Broadband Services Expert Group (December 1995). The Government's strategy has been assisted by the National Information Services Council, a national advisory forum comprising representatives from a broad range of areas covering academia, government, industry and the community. The ABA has completed its investigation into on-line services and favoured self-regulation. [*See the article by Kaaren Koomen at p 1-4 of this edition: Ed.*]

In the United States, amendments to the telecommunications legislation passed recently seek to limit what can be transmitted over the Internet, however, how this will operate in practice is far from clear.

More definite is the recent action in Germany to force Compuserve to limit access to offensive material. In December 1995, the German government, under pressure from the conservative Bavarian state government, forced Compuserve to block access to over 200 Internet news groups on the basis that some of the news groups contained sexually explicit material and were, therefore, in violation of German criminal law. Although there are only about a hundred thousand users in Germany, over four million Compuserve users in over 140 countries were adversely affected by this action. It was condemned by civil liberties advocates and privacy activists but defended by the Chinese Communist Party's Central Committee (in China, Internet users must

register with the police). Others in Europe criticised Germany for violating one of the major goals of the European Union, namely unrestricted access to the flow of information throughout the member states of the Union. However, countries which are just beginning to come 'on line' are watching the German and Chinese control policies with interest. Vietnam, for example, has decided to limit Internet access to one gateway with the objective of limiting massive use of the Internet. Similarly, Internet access and usage rates in India, Kuwait and Mexico are so expensive that social and political activist groups find its use prohibited.

In France, concern has been expressed over the ability of the Net to be used to circumvent court-imposed restrictions. In Singapore the Internet will be brought under the Singapore Broadcasting Authority (SBA) in new moves aimed at safeguarding public morals, political stability and religious harmony, although the SBA is coming to the view that self-regulation may be the preferred approach. In Korea, the government leadership in industry and research groups contributed much to the successful launch of the Korean information and telecommunication industries. However, it is commonly accepted today that this government leadership will lose its strength and that its role as an operator and regulator will fade away. It has recently revised its laws on intellectual property rights in order to conform with international obligations under the WTO/TRIPS Agreement and the government has established an Information Protection Centre to protect national information systems.

Japan has also recognised that the creation, distribution and sharing of knowledge will gain importance in an information oriented society. Concerns have been raised in that country about the exacerbation of existing social problems such as distribution of information detrimental to use, fraud and misleading advertisements, invasion of privacy and computer crime. The Minister of Posts and Telecommunications has set up a study group on electronic information and network utilisation to consider the protection of personal information and privacy and ways of ensuring the security and reliability of electronic information.

In the United Arab Emirates and Bahrain, the governments have decided to restrict wide spread use of Internet through their state-owned telecommunications monopolies. In Zimbabwe the government-owned Post and Telecommunications Corporation consistently refuses to make sorely needed upgrades to the national telecommunications network with the result that the public data network is barely able to keep up with access demand.

In Russia, the Federal Agency for Government Communications and Information has embarked on a program to control digital communications access points through the country. By having final authority to lease to private concerns the communications channels in which the Russian government has an interest, it is able to determine who has access to the Russian portion of the Internet and can monitor traffic transmitted over the digital links within the Russian federation.

CONCLUSION

It is now widely recognised that our economy will become more efficient through the effective use of communication technology, particularly inter-organisational business communication. Inevitably, this will change the way that we conduct our business relationships.

Lawmakers, both legislative and judicial, are struggling with revision of intellectual property and privacy law to bring order and commerce to cyberspace. The problem, however, is not only the legal concepts which underlie traditional protection but lack of security mechanisms readily available for use in a public data network. The old assumptions of rules and law may not be the best approach to fostering a successful converging communications industry. Policy makers and legislators may consider taking a fresh look at the market place. Some of the issues that could be impediments to the introduction of secure electronic commerce have to be tackled head on: the lack of standards, the role of certification authorities, the restrictions on use of encryption technologies and the rules of law. Only then will we be able to weave a strong fabric of electronic business relationships to supplement and replace those that support our paper economy today.

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Innocent Disseminators On-line

John Corker argues that the 1995 NSW Law Reform Commission on Defamation fails to adequately address on-line issues.

The defence of innocent dissemination is available to republishers of defamatory material who can show that:

- they did not know that the material distributed contained defamatory matter
- they had no grounds to suppose that it was likely to contain defamatory matter; and
- their lack of knowledge was not due to their own negligence.

In Australia, it has been difficult to prove the third of these elements and the defence has been restricted to persons such as newsagents, booksellers and libraries. For instance, printers of defamatory material have not been able to avail themselves of the defence although, following a ruling of NSW Court of Appeal in May 1995, the issue will go to the jury in the case of McPhersons Ltd v Hickie - ('The Gambling Man case) due for hearing in March 1997. The third element of the defence is not new. The 1885 case of *Emmens v Pottle* is often quoted as its source.

In its current form, the defence is going to be very difficult for on-line service providers to plead successfully. In the USA, the recent *Prodigy* case found that a bulletin board operator was responsible for the publication of messages on that Board. On appeal, the Interactive Services Association, in an *amicus* submission have attested that 'the volume of messages posted on electronic bulletin boards by subscribers and the speed with which they are transmitted among subscribers make it literally impossible for an on-line provider or a bulletin board manager to review messages prior to posting, nevertheless, the courts generally have not been sympathetic to these difficulties.

As Greer LJ in the English case of *WH Smith (1993)* said, 'It is not sufficient for the defendants to say that it is inconvenient for them and difficult for them, having regard to their large businesses, to make any other arrangements than the arrangements which they in fact have made. If those arrangements result in a breach of the duty to exercise reasonable care towards persons who may be damaged by defamatory statements, then there is negligence within the rules.'

The NSW Law Reform Commission (NSWLRC) concluded in their 'Report 75 - Defamation' released September 1995 that:

> 'a complete defence should be permitted only where there are clear indications that an injustice would otherwise result' and 'it is appropriate that the development of the law relating to innocent dissemination be left to the courts to determine when those involved in the publication of defamatory matter are to be classified as subordinate publishers and what the effects of that classification should be. This is especially desirable in light of emerging technologies which are constantly revolutionising commercial publishing. In our view any other approach would be likely to stultify the development of the law.'

The reference to emerging technologies in commercial publishing appears to be a reference to the *Gambling Man* case.

The NSWLRC position is likely to be the position that will be adopted in the NSW Defamation Law Reform Bill expected to be introduced into the NSW Parliament later this year.

This article argues that this approach fails to adequately take into account the restrictive nature of the relevant existing case law in Australia, the burgeoning world of on-line services, and fails to remove the impact of the present law which imposes an unnecessary restriction on the freedom of speech. It suggests that the law should be amended so that the plaintiff should be required to prove fault in any action for defamation against a republisher.

Australian case law

An example of how the law operates in Australia can be found in the NSW case of *Urbanchich v Drummoyne Municipal Council (1988)*, where Hunt J held that the Drummoyne Council had failed within a reasonable time (a month after the plaintiff's solicitor notified the Council that they should remove them) to remove defamatory posters from its bus shelters and that this was capable of amounting to publication. The plaintiff pleaded the imputation that the posters depicted him as a Nazi.

Another example of how the law in Australia operates can be seen by comparing the position taken by the Australian and the US courts on the issue of liability of affiliates of television networks for their broadcast of defamatory material which originated with a network.

In *Auvil v 60 Minutes (1992)* a US court held that a CBS television network affiliate could not be held liable for a network program which contained potentially defamatory material just because it could have pre-screened the show.(The affiliate had about an hour to do this before broadcast). The court said:

'To impose such a pre-screening requirement would force the creation of full time editorial boards at local stations throughout the country which possess sufficient knowledge, legal acumen and access to experts to continually monitor incoming transmissions and exercise on-the-spot discretionary calls or face $75 million dollar lawsuits at every turn. That is not realistic.'

However, in the recent case of *Thompson v Australian Capital Television Pty Ltd (Dec. 1994)*, the full court of the Federal Court (Miles J dissenting), held that the defence of innocent dissemination was not open to the defendant. The facts were that the Today Show was produced by the Nine Network and broadcast on Channel Nine in Sydney, from where it was transmitted to Canberra for simultaneous telecasting by the defendant. The broadcast gave rise to the imputation that the plaintiff was guilty of incest.

In rejecting the single judges ruling, the court said the defendant was 'a world away' from being a subordinate distributor. It was an original broadcaster. The majority (Burchett and Ryan JJ) said strong policy considerations militated against the extension of the defence to relayed

television transmissions; in particular, the possibility that the originator of the defamatory material might be insolvent or an overseas entity and so could not be sued readily or at all in Australia.

Burchett and Ryan JJ said, 'If an analogy to a newsagent or a bookshop were to be sought in the electronic field, a shop selling or letting on hire video cassette recordings would be an obvious suggestion'. No mention is made of the on-line electronic field of endeavour.

Miles J (dissenting) said, 'to deny the extension of the principle to television broadcasting would, in my view, be a decision of policy rather than an application of judicial reasoning'.

Thompson is distinguishable from *Auvil* in the sense that Australian Capital Television had no opportunity to vet the Today Show whereas Auvil had at least an hour but this distinction serves to further demonstrate the narrow approach taken to the defence in Australia. The show was occurring live in the Nine studios in Sydney and immediately being relayed to Canberra for re-broadcast. Burchett and Ryan JJ maintain that the interviewer and producer knew what replies they would get to certain questions. On this basis, they said the affiliate should not escape the consequences of the network producer's knowledge.

The case of *Thompson* is presently on appeal to the High Court and was heard in April this year. Judgement is reserved. There is a potential for a reversal of the Full Court decision. However, a reversal will not change the onus that falls on a republisher of disproving their own negligence to avail themselves of this defence.

US position

In the US there are three tiers of publishing each of which is treated differently. A primary (or first) publisher is held liable in circumstances similar to Australia. A secondary publisher is not held liable unless he or she changed the communication and knew or had reason to know of its defamatory nature. This second category of 'publishers' are known as 'distributors'. The third category is 'common carrier' status where the carrier is probably not even liable even if they know the defamatory material is being carried.

The online industry has been arguing that Internet Service Providers fall into the second category although the recent *Prodigy* case found otherwise.

Development of the US law is instructive.

In *Hellar v. Bianco* (1952), the court held that a bar proprietor could be responsible for not removing a libellous message concerning the plaintiff's wife that appeared on the wall of the bar's washroom after having been alerted to the message's existence.

In *Scott v. Hull* (1970), the court found that the building owner and agent who had control over a building's maintenance were not responsible for libel damages for graffiti inscribed by an unknown person on an exterior wall. The court distinguished Hellar by noting that in Hellar the bartender constructively adopted the defamatory writing by delaying in removing it after having been expressly asked to do so.

In *Tackett v. General Motors Corporation* (1987), an employee brought a libel suit against his employer for, *inter alia*, failing to remove allegedly defamatory signs from the interior wall of its manufacturing plant after having notice of their existence. One large sign remained on the wall for two to three days while a smaller one remained visible for seven to eight months. The Court held that the employer was not liable for the larger sign but was for the smaller sign.

In *Stratton Oakmont v Prodigy* (1995), defamatory material was published on a moderated computer bulletin board called 'Money Talk' which was 'allegedly the leading and most widely read financial computer bulletin board in the US'. Prodigy had contracted with a person called Mr Epstein to be the Board Leader. His duties included enforcement of Guidelines which stated 'although Prodigy is committed to open debate and discussion on the bulletin boards, ...this does not mean that anything goes'. Epstein testified that he had a tool as Board leader known as 'emergency delete function' which allowed him to remove a note and send a previously prepared message of explanation including solicitation, bad advice, insulting, wrong topic, off topic, bad taste. The Court ruled that Prodigy was a 'publisher' of statements concerning the plaintiffs on 'Money Talk'.

However, this case is subject to appeal and political support for a change to the law in the US has been high. In a floor amendment to H.R. 1555, the Communications Act of 1995, the House, by an overwhelming vote of 420 to 4, declared that 'on-line providers should not be treated as the publisher or speaker with respect to material originated by third parties, even if an on-line provider also attempts to preclude the dissemination of obscene or other objectionable materials on its system'.

Comparison

In both the US and Australia, the location and length of time that the libel is allowed to appear plays an integral part in determining whether a given defendant has adopted the libel, and thus has published it. It appears from the above cases that the US courts have been more generous to the alleged republisher than the Australian courts. The Australian courts have been more reluctant to move away from a policy which maximises the opportunity of a defamed person to recover damages from a publisher or distributor of that material. In *Thompson* the court seems to be particularly concerned with the ability of the plaintiff to find a defendant that can be sued and is not impecunious.

The statements of the majority and Miles J in *Thompson* highlight the tension between the policies of being able to identify a publisher as liable for the publication of the defamatory material and the policy of not holding someone liable for something which they could not reasonably avoid. Traditionally, a publisher has always been presumed in the law to have a significant degree of control over the published product. To date, one has always to have had some substantial means to be able to publish something to a wide audience. The privilege to publish widely has been reserved to a small number of media proprietors. These proprietors are acutely aware of the law of defamation in the jurisdictions into which they broadcast or publish and have expert resources on hand to provide pre-publication advice.

However, the ability to publish widely is no longer reserved to the well resourced and advised few. Not only can individuals publish widely but Internet Service Providers are becoming increasingly prevalent and the cost of becoming a service provider is rapidly falling. In fact, the whole architecture of the Internet seems to rely on the ease of republication to be able to function

effectively. The law of defamation has not previously been used to a world where information published by millions of persons is immediately available to millions of persons.

To impose a liability on service providers which requires them to check for defamatory material or even to remove it when they become aware, will become increasingly onerous. Often for skilled lawyers, it is difficult to agree on what is an actionable defamation. Will service providers have to seek advice where a potential plaintiff and user defendant disagree on whether a message is an actionable defamation?

ALRC and Press Council

It is worth noting that the Australian Law Reform Commission considered this matter in 1979 and recommended that a complete defence to defamation be introduced to a distributor who is not primarily responsible for the defamation. They recommended that an innocent disseminator be granted protection from action for publishing defamatory matter unless and until a judge grants an injunction against it.

The Australian Press Council in their April 1996 submission to the NSW Attorney-General responding to the NSWLRC's report have gone further and suggested that the plaintiff be required to prove fault in any action for defamation against such a person.

Lord Denning in his dissenting judgment in the UK case of *Goldsmith and Sperring Ltd (1977)*said: 'The distributors of newspapers and periodicals are nothing more than conduit pipes in the channel of distribution.'

Conclusion

The NSWLRC acknowledge that 'it is a question of policy whether the defence of innocent dissemination should generally be extended to deny a plaintiff access to damages, particularly should the primary publisher be insolvent, impecunious or unavailable'.

Further they acknowledge in their discussion paper that the requirement to prove lack of negligence may, 'impose unfair burdens on persons not actually responsible for the harm done to the plaintiff, and may stifle freedom of expression by closing channels of distribution.'

However, their recommendation of leaving the matter to the courts does not seem to have given enough consideration to the changing ways that information is being exchanged, particularly in an on-line environment. It is no longer appropriate to impose a burden on all republishers to disprove their own lack of negligence should defamatory material be found in their environs. The restriction this imposes on the free flow of information is too great when weighed against the policy outcome of a plaintiff being able to find a publisher who has sufficient financial resources to pay out any damages that might be awarded. The liability should be squarely with the initial publisher of such material. It is time that the onus to show fault by a republisher should lie with the person defamed and not the republisher.

John Corker is Manager, Legal at the Australian Broadcasting Authority and an Executive Committe member of the Free Speech Committee. These views are his own and accord with the views of the Free Speech Committee.

Developing Australia's Telecommunications Infrastructure

Sue Ferguson discusses the impact of the Telecommunications National Code on the evolving structure of Australia's telecommunications industry.

It is just over eight years since the former Minister for Transport and Communications, Gareth Evans, released a statement called "Australian Telecommunications Services: A New Framework". This statement outlined the government's proposals to open up significant, but not all, areas of the telecommunications industry to competition by private entities.

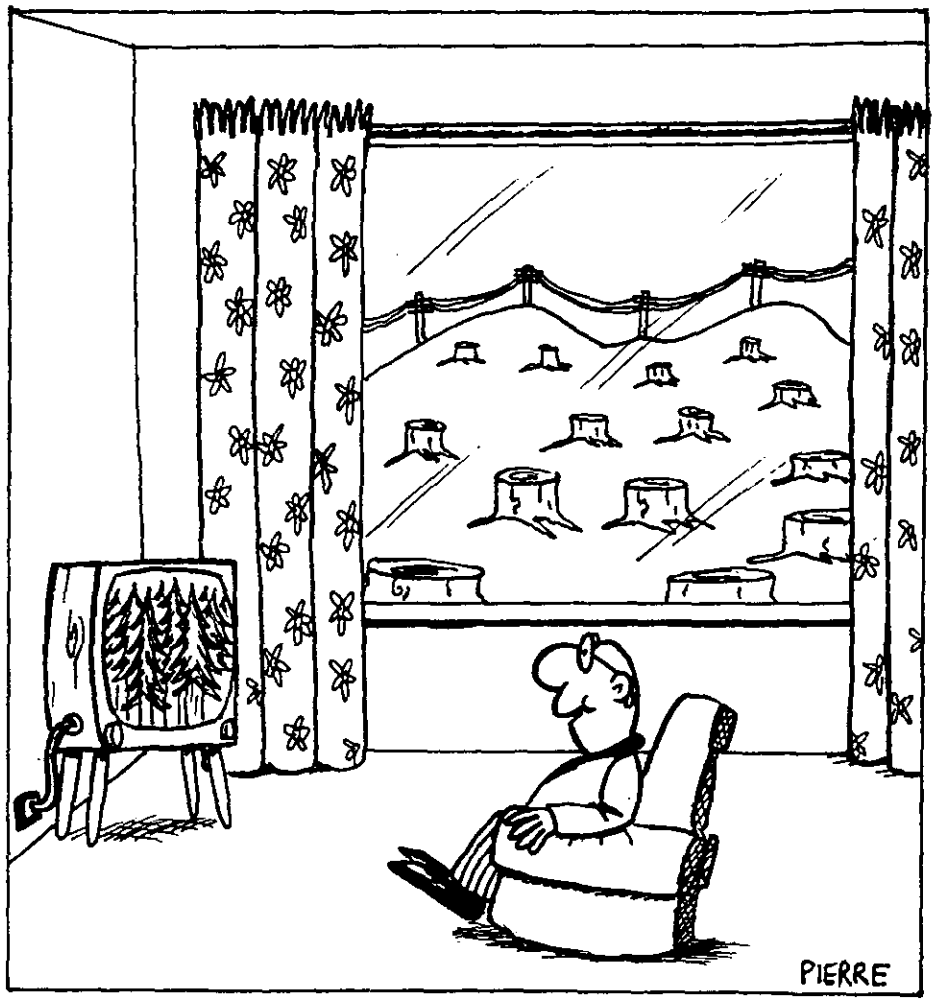
This statement was a reflection of the general trend towards deregulation and towards attempts to expose government entities to the pressures and disciplines of the market place.

In November 1990, the Beazley statement announced that a telecommunications duopoly would be established. The statement also declared the government's intention to end the duopoly in 1997, making it clear that the duopoly was a means for introducing more complete network competition.

At the time, the government was concerned to ensure that any new competitor would not be disadvantaged, that there would be a level playing field. The new competitor would be given equal access to and use of Telstra's networks and services in order to address Telstra's market dominance, achieve effective carrier competition as quickly as possible and minimise uneconomic infrastructure duplication.

However, today we are seeing facilities based competition through network duplication, or uneconomic infrastructure duplication - as some would call it. The significance of such duplication through the rollout of broadband networks (the most hotly debated of infrastructure developments) is indicative of how wrong assumptions can be about technology.

The debates today indicate that only a few years ago decision makers did not anticipate the emergence of cable as a real alternative to wireless based technologies for facilities-cased competition. They had ignored recommendations made over the past 15 to 20 years that cable services be developed and were perhaps blinded by the desperate need to sell AUSSAT.



Furthermore, policies that aimed to achieve equal access to and use of Telstra's networks and services did not anticipate the use of those networks and services beyond telephony and into broadcasting.

This is evidenced in the *Broadcasting Services Act* 1992, where it was intended that satellite technology would be the preferred means of delivery of subscription broadcasting services.

It is interesting to note that satellite services are subject to a limited form of cross-media ownership restrictions, while other technologies (notably cable and MDS) are not subject to such rules.

It gives more weight to the notion that little thought was given to the possibility of someone going to the expense of duplicating an existing telecommunications network. It was, surely, considered that the way of the future was wireless. The concept of convergence was real. But perhaps not so real was the means by which converged services would be delivered in Australia.

It seems that the minds of policy makers and the government were set on the fact that telephony would become more mobile and pay television would be delivered, primarily, via satellite and later by MDS.

Today, different technologies are used to provide services previously limited to one means of delivery. Services are merging to form new service

types; carriers, broadcasters and computer manufacturers are entering into joint ventures to develop new business and provide new services.

The Telecommunications National Code

The National Code sets out the responsibilities of the carrier when installing telecommunications infrastructure, including the requirement to consult with relevant state and territory authorities in advance of installation and adherence to technical, safety and environmental standards.

Why do we need a National Code?

In the past, Telstra was exempt from most State and Territory laws, including laws relating to the use of land and the protection of the environment. Under arrangements put in place in 1991, carriers have certain powers to enter land and can engage in exempt activities, regardless of the specific provisions of state and territory laws or local regulations.

Exempt activities include the construction of facilities or structures in relation to a carrier's network or services and the maintenance, repair or demolition of network or services facilities or structures. However, these activities are subject to the Telecommunications National Code, which came into effect on 30 June 1994 and is designed to do two things.

First, it provides a national standard for the infrastructure development process and, secondly, it provides a different set of rules for carriers, as opposed to non-carriers, who do not have powers and immunities in relation to planing and development.

While the Code provides for a national standard, many issues are being resolved very much on a local basis, with some councils choosing to enter into negotiations with carriers and the providers of utilities. Other councils have chosen the path of litigation, or have yet to decide how they will respond; still others will probably never have to make this decision.

There are a few shires in Victoria and NSW that have proceeded down the path of negotiation with the carriers and power utilities to find common ground in the overhead cabling issue.

This may go some way towards answering the question 'Can councils, communities and carriers co-operate?', but it is an answer that does not impress all councils, who feel that there should be a more uniform and national approach.

Objects of the Code

The objects of the Code are:

- to facilitate the provision of efficient, modern and cost effective telecommunications services to the public;
- to impose responsible and uniform national requirements on carriers that engage in prescribed activities as part of developing or providing telecommunications network infrastructure;
- to maximise competitive activity by facilitating the rapid deployment of efficient telecommunications network infrastructure;
- to require carriers to develop or provide that infrastructure in a manner that has full regard for the need to maximise the protection of Australia's natural environment and cultural heritage; and
- to require carriers to be accountable to government bodies and the public for their activities.

Under the Code, carriers engaging in exempt activities must:

- prepare a corporate environment plan setting out the carrier's general policies on environmental management. This is intended to ensure that environmental considerations are integrated into planning and development procedures from the earliest possible stage;
- consult with local councils and relevant authorities and, in some cases, the Australian Heritage Commission in respect of the location of facilities;
- refer the matter to the Department of Environment, Sport and Tourism if the carrier and local council are unable to resolve issues on the likely environmental impact of the proposed facility; and
- use best endeavours to co-locate facilities wherever this is technically feasible, compatible with network configuration and minimise the effect on the environment.

Issues arising from the Code

There are three issues arising from the Code:

- community outcry about the environment;
- closed access regimes in the pay television market; and
- cabling of regional areas.

We might also note that Australia is not the only country in the world facing such issues about telecommunications infrastructure development and facilities based competition.

New Zealand

In New Zealand, communications operators have special rights to deploy their network infrastructure, with these rights being determined by the *Telecommunications Act* 1987 and the terms of the district schemes covering the deployment area issued by territorial authorities under the *Resources Management Act* 1992.

Companies providing either telecommunications services between 10 or more persons and broadcasting services by lines to more that 500 persons may be declared a network operator. Declaration assists such companies requiring access to land to lay cables or construct lines.

In many cases, the rights of operators to install telecommunications lines are governed by the *Resources Management Act*. This Act requires that each city or district council (territorial authority) prepare a district planning scheme specifying whether and how various activities which impact on the environment may be carried out. In a number of cases, these plans contain provisions restricting or requiring a public hearing process to authorise installation of telecommunications or broadcasting lines.

The balancing exercise of natural environment and cultural heritage is taken account of as part of the process of preparing the plan issued by the territorial authority.

United States

In the United States, the reported issue is not so much about cable, but about antennas. It is reported that county officials in the US are increasingly resisting applications by cellular companies to erect antennas. As the number of applications grow, more local governments are finding themselves in the situation of resolving the conflicting interests of phone companies and home owners.

Rather than blocking antennas, some jurisdictions are looking to profit from companies' use of public rights of way, such as by demanding a share of the company's revenues. The phone companies have asked the Federal Communications Commission to ban this kind of levy. Typically, though, cellular companies pay fixed rents to lease antenna sites rather than paying a percentage of their income.

The Code's performance

A check of the Code's performance in light of recent infrastructure developments indicates that it has certainly done well in maximising competitive activity, but perhaps not so well in maximising environmental and cultural protection. The fact that the Code contains potentially conflicting objects and provides carriers with a significant degree of freedom in which to operate has resulted in fierce competition and a lot of community anger.

The *Telecommunications Act* allows broadcasters to install or maintain reserved line links, but does not provide them with the same powers and immunities given to carriers.

In contrast to carriers, aspiring subscription television broadcasting providers (ie non-carriers) are subject to the normal Local, State, and Federal laws covering safety, the environment, planning and zoning, etc. If damage occurs, normal remedies are available.

We haven't seen the development of such networks in competition to the Foxtel and Optus rollouts. This is largely because they are unable to access the programming essential for their proposed services. This programming has been tied up by Australis/Galaxy and Optus in exclusive programming agreements. (Australis' programming is provided to Foxtel). Until prospective Pay TV providers have access to programs, they can't get the capital investment necessary to roll-out infrastructure.

Most prospective providers of Pay TV want to develop program services in regional areas of Australia where Foxtel and Optus are unlikely to venture. It is, therefore, difficult to understand why Australis or Optus are not prepared to hand over program rights for a fair commercial price. In some areas of regional Australia they probably wish they had overhead cable to complain about!

The upshot of such developments is that we have, in effect, a facilities based duopoly that is likely to extend beyond its intended deadline of 1997. This is because of the set of programming arrangements entered into on the basis of a particular set of policies about carriage. The content policies will be very difficult to shift.

AUSTEL's review of the code

AUSTEL's role is to monitor and ensure carrier compliance with the Code. In December 1995, AUSTEL published a report of its inquiry and review of the operation of the Code since it came into effect.

This review was conducted following a Ministerial direction to AUSTEL, largely the result of community anger with the erection of mobile phone towers without adequate consultation.

During the period of AUSTEL'S inquiry into the operation of the Code, the issue of overhead cabling hit both the courts and the newspapers. Allegations of exploitation of both the spirit and the provisions of the Code started flying. At the same time, carriers put their network rollouts into top gear, aiming to complete as much of their network development as possible before any changes to the Code were implemented.

The Department has advised that a draft Code will be available soon for public comment. Senator Alston has announced plans to place stricter controls on overhead cables and mobile telephone towers under the new Code. It is expected that the new Code will eventually be replaced by a set of national planning arrangements to be administered by the States and Local governments.

It has been reported that the new Code will require environmental impact assessments to be conducted on new networks and will see AUSTEL establish an independent dispute resolution process to hear complaints.

The Code in practice

It is easy to look back and say that we should have seen these issues coming and that something should have been done about it at the time. However, the speed with which events took place (especially in relation to broadband cable rollouts) took everyone by surprise.

Visionstream

One minute, Telstra has filed a tariff for Visionstream and the next minute a second network is committed by Optus, changing the picture of the converging telecommunications and broadcasting industries. Visionstream was the company set up by Telstra to build and operate its cable television network.

Until late in 1994, it had been expected that Telstra would operate on a common carrier basis and provide open and equal access to its Visionstream network. Visionstream would initially provide cable television services and, ultimately, telephony and other interactive multimedia services. Telstra filed its Visionstream tariff on 15 July 1994 and withdrew it four months later, on 14 November 1994.

Optus' decision to enter the market and to install, operate and control its own network changed the policy picture dramatically. In September 1994, Optus said that it would not succumb to pressure to provide open access to its network because it was vital for the success of the venture that it control content.

By clever structural means, Optus was able to establish a network that was not required to comply with the access provisions of the *Telecommunications Act*. Optus would be able to veto access to its network and avoid the limitations of the open access system chosen by Telstra for its network.

Optus' exclusive access arrangements were key factors in securing investment in the network rollout. The investment would be returned, though, as Optus relieved itself of its dependence on Telstra. The network would provide Optus with a broader future, extending its operations into television and local telephony.

However, the price Optus has paid is community outrage in some areas. While Optus is providing the competitive environment desired by both government and consumers for so long, it has incurred the wrath of the community for the environmental effects of its rollout and for perceptions that it is proceeding apace despite community protestations.

Comments about Optus cables being strung between power poles have ranger from 'plain ugly' to 'environmental vandalism'.

Camouflaging cables

A recent US journal reports that, in response to complaints about the aesthetics of antennas, many wireless companies are placing their antennas with other companies' antennas or are camouflaging them to blend in with their surroundings. Antennas have been made to look like tall pine trees, church steeples or street lights.

Perhaps this is where Senator Alston got his idea to paint overhead cables to blend into their environment (ATUG '96).

Litigation

While the overhead rollout is the quickest and most economically viable option for Optus to introduce competition into the pay television and local telephony markets, it has landed the company in the courts in Victoria, NSW and the High Court of Australia.

The High Court has been asked to resolve questions relating to the constitutional rights of councils, determining who has sovereignty over local planning and the need for carriers to comply with various town planning laws and controls.

In order to maintain pace with Optus, Telstra has recently announced that it will roll out up to 30 per cent of its cable network via overhead cabling. Will it too be subject to the same public outcry?

Why has Optus proceeded down this path? In simple terms, because it undertook to rid itself of its dependence on Telstra. While some might say that the means by which Optus has achieved this is by exploitation of the provisions of the *Telecommunications Act*, the fact remains that Optus is achieving both the former and the present government's policy of facilities based competition.

Policy intentions

However, many consider it contrary to government policy, which has been founded on a philosophy of open access for end-line consumers and content providers.

While Optus' arrangements are legal, much public comment is based on the assumption that Optus is constructing an overhead cable network because it is immune from State and local planning laws.

Optus has been well aware of the growing anger at its network construction and aware of the moves to tighten the National Code. But, it must be remembered, Optus' business plan was developed many years ago.

As we know, much has happened since then - a lot of it in the courts.

Optus' move to establish its own cable network highlighted the difficult policy considerations of the day. When the *Telecommunications Act* was drafted it was not anticipated that, as a carrier and being exempt from State and Local government legislation, what was essentially a privately-developed and operated Pay TV service in the first instance, would be able to take advantage of all of the carrier benefits in terms of powers and immunities for network construction.

In hindsight, we might ask whether the Government should have reviewed the National Code at that time and if, in fact, there were other options available to it.

Regional monopolies

Alternative solutions may have been along the lines of Telstra providing open and equal access to its Visionstream service or via Optus' suggestion of the creation of regional monopolies for cable operators, creating a regulated cable market rather than unrestricted competition, with each carrier being given equal shares of the market.

Telstra naturally opposed this notion as it would see the erosion of its monopoly of local telephony. The Government opposed it because it saw it as an erosion of the value of Telstra that had been built up over many years of monopoly.

The regional monopolies proposal would provide that the company with the rights to an area would have four years to lay its cable, after which the right would expire and another party could move in.

It was thought that the establishment of regional monopolies would accelerate the rollout of cable around the nation and reduce the associated capital cost. It would also create a totally open access system nation-wide.

Michael Lee's policy statement in November 1994 put paid to all such proposals by restating the then government's commitment to the duplication of infrastructure - that this was essential for effective competition.

Changing the ground rules

One of the most interesting aspects of the current debate about how things might be fixed relates to the section 70 binding agreements between the former government and Optus, made at the time of Optus' acquisition of AUSSAT.

This agreement provides that a financial penalty will be imposed in the event of a breach of the agreement. The most significant aspect of the agreement is that it extends to 31 December 2015 and it limits the capacity of the Commonwealth to alter Optus' existing licence conditions or impose new conditions.

Writing in the May issue of *Communications Update*, Leo Grey concludes that any condition imposed by the Minister on Optus requiring it to lay its cable underground would raise serious question about whether the agreement had been breached.

Co-operation

A brief word about whether councils, communities and carriers can co-operate? I mentioned earlier that local solutions are being found to a national issue.

The Nillumbik Shire in Victoria has written in this month's issue of *Communications Update* that negotiations have resulted in agreement being reached between parties. Conditions include that Optus will not cut down trees in heritage areas, there will be no overhead cabling in new estates and any tree cutting will be under the supervision of the council. Furthermore a council representative is to be consulted on a daily basis to ensure these terms are

enforced. Optus has also agreed to inform council of its rollout plans three months before the commencement of any work in the area.

Nillumbik also reports that Telstra and Optus have reached an agreement whereby Telstra will provide details of where underground ducting capacity exists and parties have arranged to share this capacity where possible.

On a more national front, the Australian Local Government Association (ALGA)has recently issued a statement covering its proposals for a new National Code. These proposals include the need for the separation of infrastructure provision from competition in the delivery of services.

The ALGA has suggested that the installation of all telecommunications infrastructure should comply with a range of provisions, including:

- in areas of high environmental impact, technical and economic considerations should not prevail over environmental considerations except where it is acceptable to the public authority, having consulted adequately with the local community;
- local government bodies should be able to implement locality planning statements, identifying those areas within their locality considered to be suitable for particular facilities or types of facilities;
- a report should be prepared on the options for cabling in a street where there is sufficient capacity to co-locate cabling underground;
- reports, recommendations and decisions of the proposed dispute resolution panel and AUSTEL should be publicly available;
- a public asset levy should be imposed on carriers where the assets of a public authority (eg a local council) are used and different levy rates should apply depending on the type of infrastructure proposed; and
- an expert panel should formulate and review standard rates to be adopted by public authorities across Australia.

The National Trust has supported action by the ALGA and individual councils to stop the rollout of overhead cabling on the grounds of environmental degradation. The National Trust believes that telecommunications companies should be required to obtain approval from councils for the installation of infrastructure, and provide environmental and heritage statements about the effects of such cabling.

Conclusion

While in opposition, Senator Alston criticised aspects of the National Code. Now in government, he has the opportunity to do something about those deficiencies. However, he recently commented at the ATUG '96 conference that it must be recognised that carriers have proceeded with their rollouts in accordance with plans and predictions based on a set of rules put in place several years ago.

He said:

"...In these circumstances it would be like moving the goal posts at three quarter time (or twenty minutes into the second half ...) To now unilaterally intervene and require the carriers to dramatically reconfigure their networks."

In proposing to tighten the National Code, though, Senator Alston must bear in mind issues such as the speed of introduction of new communications services, the degree of competition in those services, the investment and capitalisation commitments for the services and greater obligations to consult and to have regard to those consultations.

AUSTEL commented in its recent review of the National Code:

"...Any revised code must be drafted in terms sufficiently open and flexible to accommodate technological advances which will inevitable affect the focus and conduct of business entities involved in the industry over the medium to long term. A code which is drawn too narrowly and technologically specific will require further significant revision in an inordinately short time frame."

However, conflicts remain in terms of what the Government wants and what it is prepared to pay for. When it wants someone else to pay for it, then certain sacrifices must be made. Again, quoting Leo Grey from *Communications Update:*

"In the mega-corporate privatised world of the late twentieth century, cash-strapped governments are looking for large-scale business investment rather than taxpayers' dollars to deliver on major infrastructure policy commitments. To secure that investment, there is always a price that government is asked to pay. That price is an assurance of stability and certainty for the investors in government policy. Without it, the investment and commitment to long-term involvement in a particular industry will not be forthcoming."

It is clear from the public outcry, though, that the full social costs of network rollouts are not being taken into account. The section 70 agreement between Optus and the Government forces the full social costs of the network rollouts to be borne, not by the carrier, but by the community as a whole. The effect is to impose the costs back on to the community.

What can we do about this? The awkward reality is that if we want to change the situation then it will not be cost-free. Our choices seem to be to live with the infrastructure and enjoy the benefits of competition or to bear the cost of change and to lose potential benefits.

Decisions about facilities based competition were made many years ago, with the environment being sacrificed and accepted as the price to be paid for telecommunications competition.

The commercial, political and environmental consequences of those decisions are now being felt. Today, however, it is not the environment that will be sacrificed for telecommunications competition.

Rather, competition in telecommunications may be the price that is paid to save the environment.

Sue Ferguson is Research Policy Adviser at the Communications Law Centre.

Implementing Number Portability in New Zealand's de-regulated Telecommunications Market

Anne Hurley looks at why the introduction of number portability in New Zealand is a slow process.

The New Zealand telecommunications market is fully liberalised: there are no regulatory restrictions on the entry of new network operators or service providers. However, neither are there any regulatory encouragements to new entrants: they have to rely on the provisions of the competition law enshrined in the *Commerce Act* 1986 in order to secure their place in the market.

Most followers of telecommunications issues would know that the absence of regulatory directions and the lack of an independent regulator resulted in prolonged litigation between the incumbent carrier, Telecom New Zealand, and the second carrier Clear Communications, over interconnection terms and conditions.

Currently in New Zealand a regulatory issue of similar significance to the interconnection issue is being played out - the implementation of number portability (NP). NP has been on the telecommunications agenda in New Zealand since 1991, but progress towards its implementation has been exceedingly slow. This article looks at the issues which need to be addressed to expedite the process.

What is number portability

NP is the ability of customers to retain their telephone numbers when changing operator, service or location. There are three types of NP:

Operator portability: enables customers to retain the telephone number when changing operators. The concept applies to all types of telephone numbers - to 'geographic' telephone numbers (those numbers which identify a particular geographic region, most significantly fixed network services) as well as 'non-geographic' numbers (numbers which relate to specific services rather than to geographic areas - freephone and premium services, personal numbering services, mobile and paging services). The debate about NP has generally focussed on operator portability because it is undoubtedly the most significant from the perspective of encouraging local competition. Operator portability is as important to local competition as equal access is to competition in long distance services. Specifically, operator portability creates a more competitive marketplace for the customer by reducing the impact of changing operator through the reduction of the costs of switching operators.

Location portability: also known as geographic portability, it enables customers to retain the telephone number when changing location. Location portability is not seen as having any direct impact on the development of competition, although it does provide benefits to customers changing location and to callers to those customers. The benefits are not as great as for operator portability, however, because when changing location a customer needs to advise changed address in any event. In addition, the desirability for location portability needs to be balanced with the desirability of retaining geographic numbers which indicate to customers the charge rate of calls.

Service portability: customers retain the telephone number when changing between services - for example, when moving from ISDN to PSTN.

How number portability helps deliver the benefits of effective competition

NP is a crucial element in the establishment of an effective competitive market for local telecommunications services because it:

- improves the odds in favour of new entrants initially and in favour of a competitive market place in the medium to long term;
- overcomes one of the main obstacles for customers switching operators - the requirement for, and reluctance of, a customer to change telephone number when switching operator;
- creates a more competitive marketplace for the customer by reducing the switching costs;
- strengthens competition between operators, which increases customer choice and the efficiency of the telecommunications market;
- provides opportunities for the incumbent to regain part of its lost market share by making it easier for customers to switch back if they do not have to change number yet again.

The principal benefits which result from NP can be categorised as 'direct user' benefits and 'indirect user' benefits.

Direct user benefits are the cost savings experienced by subscribers who move location or operator and retain their telephone number. Without portability, they incur costs in changing stationery, informing correspondents of their new telephone number and, in the case of businesses, advertising. Business subscribers also believe that they lose business because correspondents do not have the correct contact information. Other benefits include fewer misdialled numbers and costs saved by not having to update diaries and such.

Indirect user benefits result from the growth in competition which it encourages. Put simply, NP enables more people to benefit from lower prices and/or improved service with the new operators. In due course, these benefits will be experienced by all subscribers as competition helps to bring down costs. In the short term the benefit will be most keenly felt by those who change operator and achieve a price discount by doing so.

The lack of NP will act as a constraint on the development of local competition. The results of various market studies have been conducted to analyse and

quantify the benefits of NP vary in their detail, but the overall indications are that there are substantial user benefits from NP and that the lack of NP will slow the development of local competition because of the reluctance of customers to switch operator if they have to change telephone number.

For example, the MCI/Gallup study in the USA, in 1994, surveyed 2008 residential and 2050 business were surveyed. Offering a 10-20% price discount, 57% of business respondents said they would very likely switch suppliers. When asked again, given that they would need to change numbers, only 16% thought it very likely that they would switch, and only 24% thought it somewhat likely. For the residential customers, over 64% reported the change of telephone number as very or somewhat important, and 80% thought they would be very or somewhat unlikely to switch supplier in the absence of NP.

It is difficult to accurately quantify the consumer benefits of NP without commercial pricing arrangements. However, it is possible to say that the research carried out to date supports the argument that operator portability does provide consumer benefits through the enhancement which it gives to competition. The significance of this is that it reinforces the need to introduce NP, rather than merely find ways to offset the disadvantages of number changes. Providing NP is a pre-requisite for effective competition in telecoms markets.

International trends in the implementation of NP

There is an international trend towards the introduction of NP, with many countries taking steps towards its implementation. NP is being introduced in Australia, Finland, Hong Kong, UK and USA. It is also being considered by the regulators in a number of countries including Canada, Japan, Netherlands, Singapore and Sweden. Some of the most significant and instructive features of these countries' experiences are:

- the incumbent operators have accepted that operator portability is a necessary part of an effective competitive environment, and have been participants in the processes of its implementation;
- given the acceptance of the merits of NP, the debate has not focussed on the desirability of introducing NP, but on how to achieve the most cost-effective technical solution and most economically rational pricing arrangement;
- the decision to introduce NP is being taken without prior recourse to detailed cost-benefit analyses.

Administration of the national numbering plan

The introduction of NP is inextricably linked to control of a country's numbering scheme. In recognition of the importance of telephone numbers and numbering in a competitive environment, most countries, when opening up the telecommunications market, have transferred control of the country's numbering scheme from the incumbent to an independent number administrator, often the regulator.

There is an almost-universal standard of number plan administration in countries which have introduced competition in the supply of telecoms services. That standard involves an independent industry regulator which is funded either directly from the State budget or it is self-funding through licence fees levied on the telecommunications industry. Table 1 provides a snapshot of the ownership and control of the numbering plan of a number of countries (other than New Zealand) which have open their telecommunications markets to competition.

In keeping with the regulatory concept of independent control over the numbering resource is an underlying philosophy of numbering on which NP is predicated - that is, that telephone numbers are a national resource, owned by the nation which has freehold over all numbers. Governments have the right to change the numbering plan and the manner in which numbers are used. NP is customer-oriented and is predicated on customers' rights to port their number.

The implementation of NP in New Zealand's deregulated market

There are 2 significant areas in which New Zealand's market differs starkly from other regulatory models where NP is being introduced.

First, the New Zealand Government has neither mandated NP nor taken positive regulatory steps to ensure its implementation. There is a recent indication, however, of Government support for 'facilitating', if not mandating, NP. In its statement responding to submissions to its September 1995 discussion paper ***Regulation of Access to Vertically Integrated Natural Monopolies***, the Government announced that it would not

TABLE 1: Status of national numbering plan ownership and control

Country	Number plan administrator	Legal status	Relationship to carriers	How funded
Australia	Austel	Govt. dept.	Independent	Govt. budget
Finland	TAC	Govt. dept.	Independent	Govt. budget plus number allocation fees
Hong Kong	OFTA	Govt. dept.	Independent	Licence fees
Japan	MPT	Govt. dept.	Independent	Govt. budget
Sweden	PTS	Govt. dept.	Independent	Licence fees
UK	Oftel	Govt. dept.	Independent	Govt. budget
USA*	Bellcore	Company	Jointly-owned by the RBOCs	Funded by the RBOCs

*** The US number plan administrator is in the process of being changed to a new entity which is not closely identified with any particular industry segment and which will be subject to FCC oversight.**

be taking any regulatory action in the wake of the Privy Council decision on interconnect pricing and would continue to rely primarily upon competition law to achieve its objectives. However, the Government added that it was concerned about slow progress on number portability negotiations between the carriers, and a report had been requested from Ministry of Commerce officials on options for facilitating portability.

Secondly, there is no independent body charged with administration of the numbering plan. New Zealand is the only country in the world which runs a competitive telecommunications market and yet leaves the management of the national numbering plan in the hands of one of the competitors - indeed, in the hands of the incumbent Telecom New Zealand. When the market was liberalised, Telecom inherited the right to manage those parts of the number spectrum which were actually in use by its customers, and took over the responsibility of managing the entire national numbering plan. Bilateral negotiations between Telecom and the other carriers, particularly Clear and BellSouth, were inadequate from the new carriers' perspective for negotiating fair and equal allocation of numbers and in December 1992 the New Zealand Telecommunications Numbering Advisory Group (NZTNAG) was established. NZTNAG has representatives from Telecom, Clear, BellSouth, Telstra, Sprint, TUANZ, and the Consumers' Institute. NZTNAG is merely an advisory group which can only operate on the basis of consensus between the parties. It has no legal status. The Ministry of Commerce chairs NZTNAG meetings and attempts to reach consensus views at the meetings, but does not have any independent power over numbering decisions. Telecom cannot be bound by any proposals brought to NZTNAG by any of the other parties and is free to implement decisions on which the other parties disagree. In such a case, the only avenue for other operators is to seek redress under the Commerce Act.

These distinguishing features of New Zealand's market do not affect the desirability of introducing NP in New Zealand nor detract from the benefits which NP will bring to the competitive process and outcomes. However, they do impact severely on the speed and way in which NP is implemented in New Zealand.

Implementation of NP in New Zealand

NP has been under discussion in New Zealand since 1991. As it presently stands, there is agreement on implementing number portability for freephone services, with implementation anticipated in early 1997. Local number portability has approval in theory, but there is no timetable for implementation. The progress has been prolonged and unsatisfactory.

On 6 August 1996, a significant development took place which, to some extent, changes the debate about implementing number portability in New Zealand, although it does not resolve the crucial issues. At the 'Communications '96' conference in Auckland, a panel session of the CEOs of New Zealand's four carriers (Telecom New Zealand, Clear, BellSouth and Telstra) was held and the issue of NP was raised. Telecom's CEO Dr Roderick Dean said, at that session, that Telecom had 'no trouble' with the idea of NP, that it could be available using interim call-forwarding solutions *within 6 months of the carriers agreeing on the commercial parameters* (my emphasis) and that technically NP can be done now although Telecom could not advance the matter unless all parties sit down and *talk through pricing* (my emphasis).

The significance of the comments is that they signal a change of focus of the the debate from the more philosophical (the cost/benefits of NP for New Zealand) to the numbers (the commercial arrangements).

However, the emphasis on the 'commercial parameters' and 'talking through pricing' does not indicate how those matters are to be resolved. The present arrangement of NZTNAG would seem to make it almost a triumph for hope over experience if the parties could 'agree' the commercial parameters.

The consensus approach of NZTNAG cannot bring about agreement. First, the corporate agendas of the parties are so far apart. And it is not just corporate agendas to be considered. There is the wider public benefit of New Zealand consumers, and which party at NZTNAG is pursuing that over and above the corporate agendas? Secondly, there is no mechanism for making the decisions, no fundamental principles and no mechanisms for dispute resolution. Thirdly, NZTNAG is an uneven and unbalanced organisation. The incumbent is still in control and there is no incentive to make NP happen. Of course, to be fair, whilst that is unsatisfactory, it is also a legitimate corporate position for Telecom. In the absence of any compelling factor to force Telecom to provide NP on commercially acceptable terms and conditions, it is neither legally, morally nor commercially obliged to do so.

In the absence of a regulatory body, and given that the industry in New Zealand does not want a regulator, what can be done to progress the position? The solution seems to be to work with what is already there, but strengthen it:

- make NZTNAG a legal body which is independent of the carriers and ensure that no one party has greater control in the decision-making process than any other;
- entrust the implementation of NP to that body;
- set up procedures which do not rely on consensus for making decisions ;
- set up dispute resolution mechanisms designed to avoid drawn-out litigation in the Courts;
- maintain public governmental support for the implementation of NP.

CONCLUSION

There can be no real doubt that progress in NP in New Zealand is being delayed by the absence of an administrative body, independent of the incumbent, charged with responsibility for implementing NP. If there is to be full and effective competition in New Zealand's de-regulated market, then efforts must now be expended in establishing an independent body with control over numbering, decision-making procedures for that body and dispute resolution mechanisms.

Anne Hurley is a Principal Consultant, Policy and Regulatory, with Ovum Consulting Asia Pacific. The views expressed in this article are her own.

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COMMUNICATIONS AND MEDIA LAW ASSOCIATION
(CAMLA)

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