

Q & A

THIS MONTH WE TALK TO CHRIS CHEAH, RESEARCH MANAGER, COMMUNICATIONS FUTURES PROJECT, ABOUT THE PROJECT AND WHAT WE CAN EXPECT FROM IT.

What is the Communications Futures Project?

The Communications Futures Project (CFP) is a research project which is looking at the future directions for the communications industries. It is exploring the forces that are shaping the future of communications in terms of technological changes underlying the potential market responses and the regulatory options that may need to be considered over time.

Why was it established?

There are some major reviews coming up. The telecommunications duopoly review will be in 1997. The telecommunications duopoly ends 1 July 1997, and after then we will need a new policy and regulatory regime to cover the post duopoly period which will probably take us through into the early years of the next decade. In broadcasting, there is to be a review of the three commercial television stations limit. The Industry Commission is to review the new spectrum and radiocommunications arrangements, probably in 1996. With all these reviews coming up, the CFP was established to provide important preparatory work in improving the analytical basis, the level of knowledge and understanding of what is happening. In addition, there is the feeling that the communications environment in the few years to the end of the century is probably going to start looking a lot different, as the many of the major technological developments that people are talking about now start to take effect commercially.

When was the CFP set up?

The CFP was announced by Minister Beddall, the previous Minister for Communications, on 31 August 1993.

We are part of the Bureau of Transport and Communications Economics. This research area was previously within the Department of Transport and Com-

munications. It is now nominally associated with the Department of Transport but does research work for both the Department of Transport and the Department of Communications and the Arts.

Do you have a set reporting date?

Yes. We are due to report by the end of this year. Although that will be our formal report, we have decided to proceed by work in progress reports which give us feedback and help inform the



CHRIS CHEAH

policy debate as it picks up on the issues during the year.

What reports have you released?

We have released the first two of the work in progress papers. The first provides a framework for thinking about emerging communications services. It does that by first looking at existing communications services markets and makes observations about trends because they will form a baseline from where things develop from here on in.

It then looks at a range of relevant factors that might help shape future communications markets in relation to demand. Similarly with supply side, it looks at how suppliers might be organising themselves and using technologies to provide services people might want, and then explores the way those two sides might interact over time to shape future communications markets. It also provides a survey of the sort of future services people are talking about in a structured way.

The second paper deals with delivery technologies. They include copper wire telephone network, coaxial cable network, optic fibre, various combinations of broadcasting technologies such as MDS, and a range of other wireless technologies. It looks at the trends, at how those different technologies might be used by different players to support different sorts of commercial strategies.

What are some of the issues the CFP has identified?

We in Australia are almost certainly going to be looking at a multi-platform environment as the decade proceeds. A lot of households are likely to be given access to a range of different technologies at the one time and there will be a range of choices and competition between those. A related conclusion is there will far greater channel capacity. It will not just be a matter of introducing pay TV as they have done overseas, it will really be a matter of moving fairly quickly to an environment where there will be a very large amount of channel capacity if people really want to take advantage of that.

The information super highway, as it is called in the popular press, is probably still some way off, in part because a lot of the switching and transmission

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technologies—needed in the network to support that level of service—are not yet available in a commercially viable form. You might get some sort of limited interactivity in different ways, either across a network which has dial-up services, or encoded interactivity through broadcasting, such as interactive groups are considering now. We are not likely to see full interactivity on a widespread scale for some time.

What is a multi-platform environment and what will be its effect?

It means the different delivery media and the means or platforms by which the services can be delivered. In the more densely populated parts of Australia, there will probably be multiple passing of different platforms to residences. Cable will be passing people's homes so they will have the option of taking cable technology, traditional broadcasting which may be digitised, MDS and/or satellite. There could be a large number of satellite signals coming in from the region. Digitisation will rapidly expand the channel-producing capacity of those satellites and quite a few will have significant footprints over the more densely populated parts of Australia.

We will be looking at its effect in the next phase of our work. We have identified some early conclusions. One of the things about having a plurality of platforms is it raises questions such as, what does universal service mean in that sort of environment? In the multi-channel environment there is a very large range of impacts possible on a number of different aspects of policy, including competition policy and equity considerations. We will be looking at that in our next phase of work.

What impact has CFP had on government thinking so far?

Our first two papers have been foundation level papers. The technologies covered and the conclusions of the second paper have been drawn on by the Broadband Services Experts Group (BSEG)

It is perhaps, however, worth point-

ing out, we are not in the business of making recommendations to government. Others do that, the Telecommunications Review recently announced by Minister Lee and BSEG, both of which are charged with making recommendations to government. There is also the Copyright Convergence Group which will also make recommendations on convergence and copyright. We see our work as feeding in to all those processes and providing a basis for more informed discussion and debate.

What big issues for broadcasting has the CFP identified?

The emergence of the multi-channel environment which will make the narrowcasting phenomenon pick up. That will quickly help shape quite a different broadcasting environment than has existed in the past. The pace of technological change is also picking up very quickly, with digitisation being the great phenomenon. This will mean you can provide any type of service over any digitised platform and thereby offer a wide range of potential services. Broadcasters will be able to provide services other than broadcasting and the converse. The distinctions between traditional broadcasting and other sorts of services are likely to fairly quickly diminish.

What will happen to consumers and how will they fare in a converged environment?

The new environment is likely to provide a much wider range of services than the existing one. It's probably going to be dominated by a much wider range of producers with a much wider range of product. Consumers will play a more active role in helping to shape how that environment develops and in getting a product which is much more tailored towards their personal needs and interests. With existing mass broadcasting there are only a very small number of conduits by which we get entertainment. As the new environment proceeds, with the first stage, the multi-channel environment, and later as there is more interactive media, you are likely to see progressively better capabilities for consumers to get the sorts of infor-

mation they want.

A feature of the new environment is that a lot of the old supply side constraints, such as limited spectrum, will rapidly diminish even if they do not entirely go away.

What is the information super-highway and how will it be provided?

Basically it is a metaphor. Originally, as talked about by US Vice-President Al Gore, it was envisaged as a high capacity, ubiquitous communications infrastructure which was capable of supporting a wide range of lifestyle and business transforming communication and information applications.

Speaking to that definition, i.e. a full serviced switched broadband network, the most commonly accepted wisdom at the moment is that it will probably be provided by some form of cable based network by optic fibre to a neighbourhood, probably with coaxial cable to the household. But there may be other technologies that can provide similar functions, for example, there are a range of wireless technologies that shouldn't be overlooked. If you were to move to a ubiquitous microcell architecture, which involves a very large number of small towers covering a small area, then the potential may exist to re-use spectrum to provide the sort of switchable broad bandwidth envisaged for superhighway type applications.

What is switching?

It is the way you allow one person to talk to another person across a network, e.g. on the telephone. If I call you, I get switched through an exchange to you at the other end. At the moment, with just a telephone, a circuit is set up between you and me across the network and it is the switch which basically points the conversation in the right direction. That's circuit switching. There are other forms, such as packet switching which involves packaging a stream of small data packets, each of which has addressing information at the head of the packet. Because each packet can have its own addressing information at the head of the packet, there can be a stream which can be directed anywhere on the network.

It's that computer type of addressing system that needs to be put in place before we can have a fully switched digital broadband network. Most of our current telephone network is circuit switched but we need one that is capable of switching information at very much higher rates. Telephone voice networks only require a very small amount of bandwidth as the capacities involved are around 64 kbits/sec. To provide a highly compressed movie would require at least two million bits/sec. As requirements become more sophisticated, the amount of bandwidth requirement keeps on rising.

What are the CFP's plans?

There are three major areas of current work:

- 1 to develop a sketch of some network and market evolution scenarios, with particular interest in the period following 1997. This will provide a basis for us to understand what sort of environment we may be looking at.
- 2 a look at industry: how industry alliances are working, what forces are shaping them, how value adding process are changing in the information communications industries. What are new issues, particularly for competition and industry policy, what those changes might throw up?
- 3 what are the policy implications: competition policy, industry policy and social policy e.g. access and equity. What impact might these new technologies have on traditional broadcasting and what impact might they have on privacy?

We are providing some of the analytical foundations for those issues. It is a very broad field and we do not think we will be providing all the answers—but we will hopefully be able to provide some insights.

Copies of the Communications Futures Project papers are available from Jenny Rodriguez on phone (06) 274 6016 or fax (06) 274 6816.



PAY TV—NEW AUSTRALIAN DRAMA GUIDELINES

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guidelines.) In particular, it is important to note that the Act provides the definition of 'Australian drama program' in relation to the licence condition. The definition in subsection 6(1) of the Act sets out six different criteria by which a program may be an 'Australian drama program'.

The industry is still in its early stages and pay TV services have yet to commence operation. While the ABA has sought comment on the guidelines it is not possible to identify all operational issues at this stage. Clearly therefore, the ABA expects that there will be a need for further consultation about the implementation of the new Australian drama condition as the industry develops.

DEVELOPMENT OF THE GUIDELINES

In January 1993 the ABA released draft guidelines on the implementation of the 'new Australian drama' 10 per cent expenditure condition for predominantly drama pay TV services. The draft guidelines were intended to assist those bidding for licence A and licence B.

In April 1993 the ABA invited a number of organisations to respond further to issues identified from initial comment received on the draft guidelines. The guidelines were redrafted after consideration of the comment received.

In December 1993 the ABA commissioned Deloitte Touche Tohmatsu to provide advice on the second draft guidelines. The consultant's brief was to identify any problem areas in the implementation of the guidelines.

The consultant reported to the ABA in January 1994. The main conclusion of the consultant's report was that the guidelines should be simplified through the use of a cost based rather than market value based method of determining program expenditure. The consultant's report states that:

In our opinion, the concept of using market value to implement the Act has significant potential for misunderstanding and abuse of the condition.

After consideration of the consultant's advice, the guidelines were

amended by the ABA to use cost, rather than market value, as the basis for determining program expenditure.

SIGNIFICANT CHANGES FROM THE DRAFT GUIDELINES

1. Cost based

The proposed guidelines use cost rather than market value as the basis for determining program expenditure. In line with the consultant's advice to the ABA, the cost based system requires that the cost by all related entities for purchase (or production) of program rights are taken into account. The consultant's report states that this approach 'would minimise any advantages that a particular corporate structure may achieve in relation to the condition'.

2. Format

The guidelines have been redrafted to be more easily read and understood by the general reader. A number of working examples have been included in the guidelines.

3. Power to declare that a program is not an Australian drama program

At the time the draft guidelines were produced, the Act was thought to provide scope for the ABA to declare any program (that would have normally qualified as an Australian drama program under any of the six criteria in s.6(1) of the Act) not to be an Australian drama program on the basis of it containing significant non Australian content. The ABA subsequently discovered that the Act only conferred this power in relation to programs in the feature film format. The then Department of Transport and Communications subsequently agreed to seek an amendment to the Act to ensure the full scope of this power.

The Minister informed the ABA on 20 October 1993 he proposed to introduce an amendment to the Act which will allow the ABA to disallow a program in any format (not just feature films) which is claimed to meet paragraph (a) of the definition of 'Australian drama program', if it has non Australian content of such significance that it should not be treated as an Australian drama

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