THE CONVERGENCE OF BROADCASTING AND TELECOMMUNICATIONS

THE NEED TO SHIFT FROM A VERTICAL 'SILO' MODEL TO A HORIZONTAL 'LAYERED' MODEL OF REGULATION

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A challenge facing reformers in the field of communications law is the increasingly widening gap between converging markets and services, and regulatory frameworks that continue to govern on the basis of a rigid vertical distinction between broadcasting and telecommunications. In Australia, media and communications are governed by the two distinct and largely independent statutory regimes created by the Broadcasting Services Act 1992 (Cth) and the Telecommunications Act 1997 (Cth). However, markets and services and the underlying technologies have converged. In such a context, continuing to apply vertical 'silo' laws serves to undermine established regulatory objectives of parity and technological neutrality. In 2011, the federal government announced a review of the effects of convergence. One of the issues identified in the review was to need to consider shifting from a silo model to a horizontal 'layered' model. The purpose of the present article is to analyse the merits of adopting a horizontal layered model (i.e. one which mirrors the horizontal layered architecture of modern electronic communications) as the basis for the design of an effective regulatory framework for electronic communications in Australia.

INTRODUCTION

A challenge facing reformers in the field of communications law is the increasingly widening gap between converging markets and services and regulatory frameworks that continue to govern on the basis of a rigid vertical distinction between broadcasting and telecommunications. In Australia, media and communications are governed by the two distinct and largely independent statutory regimes created by the *Broadcasting Services Act* 1992 (Cth) and the *Telecommunications Act* 1997 (Cth). However, markets and services and the underlying technologies have converged. In such a context, continuing to apply vertical 'silo-based' laws serves to undermine established regulatory objectives of parity and technological neutrality. In 2011, the federal government announced a review of the effects of such convergence. One of the issues identified in the review was the need to consider shifting from a 'silo' model to a horizontal 'layered' model. The purpose of the present article is to analyse the merits of adopting a horizontal layered model (i.e. one which mirrors the horizontal layered architecture of modern electronic communications) as the basis for the design of an effective regulatory framework for electronic communications in Australia.

In 2011, the federal government released its *Convergence Review – Framing Paper* (the 'Framing Paper') which outlined the terms of reference for the inquiry. After a process of stakeholder consultation, the government released its *Convergence Review – Emerging Issues* paper (the 'Emerging Issues Paper'). The *Emerging Issues Paper* outlines issues which were identified as important on the basis of the submissions received to the *Framing Paper*. For the present analysis, a critical issue is the need to 'shift from industry ‘silos’ to a market structure based on ‘layers.’ ' It is noted that such a 'shift' would enable the policy framework to 'focus on services offered by each layer, rather than each industry' ('Emerging Issues Paper', 12).

The *Emerging Issues Paper* further notes that regulatory parity and technological neutrality would be enhanced by a transition to a horizontal layered model (p 13).

The objective of the present paper is to analyse the merits of transitioning to a horizontal layered approach to legislation through an examination of the scholarly literature in the field and a consideration of present Australian broadcasting and telecommunications laws. The discussion hence seeks to provide a reflective scholarly basis for the issue introduced in broad terms in the *Emerging Issues Paper*.

The article begins by outlining the vertical model of laws presently in operation in Australia, and considers the problems created by using such vertical laws to regulate networks and services which are intrinsically horizontal and layered in nature. This analysis of the problems is followed by an outline of the relevant law reform discourse to date, and a consideration of an effective mechanism for implementing a horizontal layered model. In light of reference in the *Framing Paper* to the relevance of considering 'international approaches' ('Framing Paper', 18), and the benefits of examining an operational system, the European Union framework for the regulation of 'electronic communications' is then examined. Finally, it is concluded that in order to address the distortions created by the use of vertical sector specific laws, Australia needs to transition to a horizontal layered model of regulation, and that the electronic communications framework introduced in the European Union in 2002 provides an useful road map for Australian reform.

1. THE VERTICAL 'SILO' STRUCTURE OF PRESENT COMMUNICATIONS REGULATION

Bar and Sandvig note that modern communications policy in most of the world has evolved to treat different media as 'islands' (Bar and Sandvig 2000, 100). Nakahata describes such a framework as regulation 'by pigeonhole' (Nakahata 2002). Similarly, Rob Frieden notes that telecommunications law has historically been based on 'fixed service definitions and relatively static assumptions about the industrial organisation of telecommunications and information processing' (Frieden 2003, 209). These descriptions are certainly true in relation to the landscape of Australian communications law. Australia's media content and communications services regulation is rigidly structured on a vertical or 'silo' based model of regulation. That is, we presently have two discrete and distinct regulatory frameworks for each of broadcasting and telecommunications. Broadcasting activities and services are largely governed by the *Broadcasting Services Act* 1992 (Cth) (the 'BSA') and the *Radiocommunications Act* 1992 (Cth) (the 'RA'), whilst telecommunications is governed by the *Telecommunications Act* 1997 (Cth) (the 'TA'). Whilst a bridge of provisions exists in order to ensure that the laws interrelate, the statutory regimes remain intrinsically distinct and independent in application.

The broadcasting sector is primarily regulated through licences issued under the BSA. As discussed in the *Emerging Issues Paper*, these licences form a vehicle through which regulatory requirements can be imposed on operators. Additionally, the allocation of commercial and television radio licences forms part of the planning process for the portion of the radiofrequency spectrum reserved for broadcasting. The RA governs the allocation and management of licensing through a framework that involves spectrum frequency planning, the setting of radiocommunications standards, and most importantly, the licensing of spectrum and related infrastructure.

A comparison of the objectives of the BSA and TA illustrates their defined and different realms of operation. As noted in the *Emerging Issues Paper,* the BSA starts from the premise that broadcasting services need to be governed differently to other communications services on the basis that broadcasting laws seek to achieve a variety of social, cultural and economic goals. For example, the objectives provision in s 3(1) of the Act encompasses a variety of objectives designed to encourage access to information, education and entertainment, as well as encouraging content that develops Australian identity and character and cultural diversity.

Section 4 (3) of the BSA further provides that Parliament intends that Internet carriage services supplied to end-users in Australia be regulated in a manner that enables public interest considerations to be addressed in a way that does not impose unnecessary financial and administrative burdens on Internet service providers. It is also envisaged that such regulation will readily accommodate technological change and encourages the development of Internet technologies and their application, provision of services made practicable by those technologies to the Australian community and the supply of Internet carriage services at performance standards that reasonably meet the social, industrial and commercial needs of the Australian community.

In contrast to the detailed objectives of the BSA, s 4 of the TA simply provides that Parliament intends that telecommunications be regulated in a manner that promotes the greatest practicable use of industry self-regulation, and does not impose undue financial and administrative burdens on participants in the Australian telecommunications industry. 'Telecommunications industry' is further defined in s 7 of the TA to include an industry that involves carrying on business as a carrier or carrying on business as a carriage service provider, supplying goods or services for use in connection with the supply of a listed carriage service, supplying a content service using a listed carriage service, manufacturing or importing customer equipment or customer cabling, or installing, maintaining, operating or providing access to a telecommunications network or a facility used to supply a listed carriage service.

The BSA seeks to achieve its stated objects by dividing all services into a series of mutually-exclusive categories that attract different forms and levels of regulation (ss 11-18A of the BSA). The categories broadly relate to three main sectors of broadcasting, commercial services, community services and national services, each of which attracts a different licensing arrangement. Commercial services encompass the more specific categories of commercial broadcasting services, subscription broadcasting services and narrowcast services. National services encompass the Australian Broadcasting Corporation and the Special Broadcasting Service.

The *Framing Paper* observes that the BSA provides 'a mix of business models for broadcasters' (p 7). One model relates to 'free-to-air' broadcasters who are largely dependant on advertising revenue to deliver services and are governed by broadcasting and open narrowcasting licences. A second model relates to subscription broadcasters and narrowcasters who are largely dependant on subscription income to deliver services and are governed by subscription broadcasting and narrowcasting licences. A third model relates to community broadcasters who are largely dependant on community sponsorship. A fourth model relates to the regulation of the ABC and SBS who are largely dependant on government funding, and in the case of SBS, a measure of advertising revenue.

In comparison, the TA seeks to achieve its stated objects through the licensing of carriers, parties who own infrastructure for providing carriage services. Two further categories of industry operators, carriage service providers who provide services used on the infrastructure owned by carriers, and content service providers who rely on carriage service providers to provide content based services to the public do not require licensing under the TA but are subject to governance of the TA. The three categories are not mutually exclusive, and one operator can simultaneously fill all three roles. Notably, whilst the TA regulates content service providers, the actual content they deliver through such platforms are predominantly governed by the BSA. Hence, in comparison to the BSA, the TA seeks to create a liberalised regulatory environment that actively encourages self-regulation.

Finally, it is relevant to note that all three Acts confer a wide range of functions and powers on the Australian Communications and Media Authority ('ACMA'), and a more limited range of powers on the Australian Competition and Consumer Commission ('ACCC'). The latter is also provided jurisdiction in the telecommunications sector by Part XIC of the *Australian Competition and Consumer Act* 2010 (Cth), the telecommunications access regime.

Therefore, the Australian communications sector is presently regulated by three distinct Acts, the BSA, the TA and the RA. Whilst a certain level of cohesion is provided by the

overarching regulatory function of ACMA, and to a lesser extent the ACCC, these three frameworks remain inherently independent and emphatically 'vertical' in structure.

2. THE INTRINSICALLY HORIZONTAL 'LAYERED' NATURE OF COMMUNICATIONS TECHNOLOGY

However, whilst laws continue to operate on the basis of a vertical or silo model, telecommunications and broadcasting services, markets and technologies have converged, and no longer operate in delineated and separate sectors. In order to understand the limitations of the present vertical laws, it is necessary to understand the layered nature of Internet communications and consequent services. Bar and Sandvig note that the Internet offers 'a range of applications that once existed in different domains governed by different policies' (Bar and Sandvig 2002). They also note that Internet also presents 'new applications that defy [traditional] classification.' Similarly, Werbach notes that' '[h]ermetically-sealed categories' which are at the 'core' of the vertical approach are foreign to the Internet (Werbach 2002, 47). As nearly all platforms and devices in the convergent era are digital, they are able to converge to a common network that operates over a variety of infrastructure types such as mobile wireless, copper phone lines, satellite and optical fibre-based infrastructure. This allows users to access the Internet on their television or mobile phone, or watch television or listen to the radio on a PC.

In such a context, it is necessary to examine the horizontal layers of electronic communications architecture. Entman notes that conceptually distinguishing the technical layers of the system can offer a 'new paradigm that can clarify and identify regulatory problems and point to their solutions' (Entman 2002). By examining the technical structure of the Internet, lawyers are able to better understand the different levels of competition that operate at the various layers. For example, if more intense competition is feasible and desirable at a particular application level of the network, stimulating competition at that level may yield higher consumer benefits that trying to do so at another level.

In order to design effective regulation that precisely targets its intended object, Cannon breaks the structural architecture of modern communications into three distinct layers (Canon 2003, 167). Firstly, the network layer which consists of the physical infrastructure of connection such as network cable and spectrum. Secondly, the logical layer which consists of the means of interconnection between users such as open access or peering. Thirdly, the content layer which consists of content. Cannon argues that by conceptualising the policy as layers, the analysis is able to more precisely identify markets, clarify issues, create effective boundary regulations, and, in so doing, 'target solutions where issues reside' without unduly interfering with other industries and opportunities.[1]

Sickler and Mindel note that the real value of horizontal laws is that it enables regulation to be 'compartmentalised by considering the role of regulation on each layer distinct from the layer above it or below it' (Sickler and Mindel 2003, 69). They note that regulating on the basis of the horizontal laws enables the separation of the service aspects of the network in a manner that is consistent with the design of the network itself. Frieden further notes that horizontal based laws would serve to create a regulatory regime based on how technologies 'function,' precluding the need to make semantic distinctions between converging concepts (Frieden 2003, 209).

The responses of stakeholder to the *Framing Paper* echo these sentiments, and it is noted in the *Emerging Issues Paper* that it is no longer 'useful' to look at broadcasting, radiocommunications and telecommunications as 'separate and distinct industries with unique policy frameworks,' and that a 'more useful approach' would be to recognise market structures as consisting of a series of layers created by convergence. In comparison to Canon's three layer delineation, the *Emerging Issues Paper* identifies four layers. The first or bottom layer consists of the underlying infrastructure or conduit which transports content. The second layer is the network which manages and directs the content. The third layer consists of content or

applications. The fourth or top layer consists of devices through which the content is accessed.

Interestingly, Cannon attributes the highly successful early development of the Internet to the largely horizontal laws adopted by the Federal Communications Commission (the 'FCC') in the mid 1960s (Cannon 2003, 167). In 1966, the FCC identified a growing 'convergence' between the 'modern-day electronic computer' and 'communication common carrier facilities and services.' This can perhaps be described as the 'first wave of convergence.' That is, as Whit notes, the FCC recognised, very early, the need to separately regulate computer services and communications services (Whit 2004, 597).

In 1980, the FCC introduced the Computer II Order. This Order distinguished common carriage services from services that employed communications services for the purpose of providing value-added services in the market. The FCC distinguished between basic or enhanced services, and left the latter largely unregulated. Basic services were those that amounted to a common carrier offering of transmission capacity for the movement of information. In contrast, in order to qualify as an enhanced service, the service had to:

- utilise computer processing applications that relate to the format, content, protocol or like elements of the transmitted information;
- (b) provide the user with additional, restructured or different data; and
- (c) enable direct user interaction with information.

Vint Cerf, commonly regarded as the founding father of the Internet, credits the Computer Inquiry with supporting the development and use of the Internet. Cerf notes that the FCC's foresight in limiting regulation to the local phone companies and leaving the market for competitive information services largely regulated, 'contributed strongly towards the commercial introduction, rise and incredible success of the Internet' (Cerf 2002).[2]

Therefore, the first wave of convergence can be described as the convergence of telecommunications and computer services and the decision to adopt an essential horizontal approach is widely agreed to have been successful. The issues raised by the 2011 convergence review relate to the convergence between telecommunications and broadcasting and arise within a very different factual matrix. The lessons learned from this successful and largely horizontal model of regulating the first wave of convergence should guide the regulation of this 'second wave.' However, unlike the first wave, which involved an entrenched legacy framework with respect to telephone communications and a relatively new industry of enhanced computer services, the present wave involves a clash between two established titans. Telecommunications and broadcasting each have entrenched legacy frameworks, and whilst the technologies have merged, the regulatory frameworks remain unyielding. As such, the effective regulation of this second wave offers far greater challenges than did the first wave of convergence.

3. THE PROBLEMS CREATED BY USING VERTICAL LAWS TO REGULATE HORIZONTAL-LAYERED NETWORKS

A variety of scholars have theorised on the problems created by using vertical laws to regulate horizontal-layered networks. Frieden identifies four limitations with the vertical silo-based approach to communications regulation (Frieden 2003, 211). Firstly a vertical approach assumes that the distinctions or boundaries between services can be identified. However, due to the convergence of technologies this is no longer a valid assumption. For example, the Internet can carry a myriad of different services such as e-mail, voice communications, gaming, shopping and entertainment. Secondly, vertical regimes often require mutual exclusivity in classification where a service is subject to either one or another regime. This does not recognise that a single service can bear indicia of more than one category. Thirdly, the regulatory regimes consider each category of service in isolation rather than as links or chains in a network. Finally, vertical regimes tend to inadequately consider the relationship between network architecture and the services provided to end-users (Frieden 2003, 211).

Similarly, Sickler and Mindel identifies a variety of 'distortions' generated by reliance on vertical regulatory regimes including, interconnection distortions, bundling discriminations, content discrimination, market distortions, and investment and deployment distortion (Sickler and Mindel 2003, 68-69). In Sickler and Mindel's analysis, 'interconnection distortions' relate to problems caused by interconnecting networks regulated by different law. 'Bundling discriminations' occur where different operators can restrict access to content. 'Content discrimination' occurs where operators are able to dictate the terms of content and conduit delivery. 'Market distortions' refer to price not accurately reflecting the cost of the service. Finally, 'investment and deployment distortions' relate to the making of investment choices based on the nature and degree of regulation governing a particular service rather than the demand and supply for the service.

Werbach states that communications policies need to be redesigned around the architecture of the Internet and the engineering protocols established for the Internet because due to the inevitable centrality of the Internet, communications policy will always be a 'subset' of Internet policy. (Werbach 2002, 39-40). Similarly, Frieden notes that adopting horizontal regulation would enable regulation to be based on how technologies function and would preclude the need to make semantic distinctions between converging concepts' (Frieden 2003, 212).

The *Emerging Issues Paper*s affirms the above scholarship on this topic, and suggests that the use of a layered framework would enable policy makers to better focus on the service offered rather than the industry. It is further noted that, although it may be justifiable to treat services differently based on delivery, the use of a horizontal approach to regulation makes this more 'transparent' (p 12). Furthermore, the *Emerging Issues Paper* specifically notes that it is a logical extension of the 'layered' approach that a policy framework can develop around a specific service regardless of its mode of delivery (p 13).

4. THE LAW REFORM DISCOURSE TO DATE

Whilst the 2011 convergence review represents the most direct confrontation of the problem of convergence, it was preceded by a variety of other, more confined, reviews. It is useful to outline the relevant law reform discourse to date.

The 2000 *Broadcasting Inquiry Report* by the Productivity Commission included a discussion of convergence. The inquiry's terms of reference required the Productivity Commission to 'have due regard to the phenomenon of technological convergence to the extent that it may impact upon broadcasting markets' (p 3). Significantly, the terms of reference were limited to 'technological convergence.' Unlike the 2011 inquiry, the 2000 inquiry did not encompass the broader issues of the convergence of markets and services. It is also interesting to note that in fulfilling its terms of reference, the Productivity Commission expressed conflicting views on the incidence of convergence. The Report acknowledges the 'possibility' of convergence. The reason given for the reluctance to consider reform is curious, even in 2000. It is that the pace of technological change increasing is not a certainty but rather merely a possibility: 'The pace of technological change in media and communications may increase in the near future' (p 122). Moreover the report concludes that no reform is necessary: '[T]here is a false choice in the notion that government must decide a wholly new policy framework to accommodate change, or the regulatory status quo because sufficient change has not yet occurred' (p 123). The technological evolution of the subsequent seven years is clearly evident in the 2011 review that begins with a premise that appropriate reform as critical to the future development and growth of the communications sector.

As well as the above general reports, there have also been consideration of specific services and technologies. A review of datacasting services culminated in December 2002 in a Government report titled *Report of Review of the Operation of Schedule 6 of the Broadcasting Services Act 1992 (Datacasting Services)*. The central objective of the review was to ensure that the legislative framework for datacasting services provided 'maximum scope for the development of new and innovative digital services' (p 2). Of secondary

importance were matters relating to the allocation of spectrum, specifically the appropriate arrangements for the allocation of licences and the appropriate arrangement for the allocation of datacasting transmitter licences. Of most interest for the present purposes is the last matter reported on the list of issues to be examined. Comment was invited on whether the Ministerial Determination made pursuant to s 51 of the *Telecommunications Act,* which exempted holders of a datacasting licence under the *Broadcasting Services Act* from also applying for a telecommunications carrier licence in relation to those services, should continue. The outcome of the review was that there were to be no changes to the rules relating to the content that could be provided under a datacasting licence for the time being.

The regulation of voice over Internet Protocol services ('VoIP') has also been the subject of reform discourse. In 2004, the Department of Communications, Information Technology and the Arts released a Discussion Paper entitled *Policy and Regulatory Framework for Emerging Voice Services* which considered the appropriate basis for VoIP regulation. The paper considered alternative regulatory scenarios, including an option of uniform regulation, an option of multi-tier regulation (classifying and regulating VoIP services on the basis of a series of criteria) and a next generation approach, termed the 'NGN approach.' The NGN approach is of relevance to the present discussion as it seeks to distinguish between the infrastructure, the carriage service and the applications layers of the provision of a VoIP service, and regulate each of these elements as a separate horizontal layer. Subsequently in 2005, the Department of Communications, Information Technology and the Arts released an Issues Paper entitled *Telecommunications Competition Regulation*. The paper outlined the issues relating to the proper regulation of VoIP but no final conclusions have been reached to date.

5. THE EUROPEAN UNION EXPERIENCE

If, as a consequence of the perceived distortions generated by vertical frameworks, it is accepted that communications regulation should be structured on a horizontal layered basis, the next question which arises is what would such a horizontal layered regulatory model look like in practice. A useful starting point is Solum's six-layered horizontal model of regulation (Solum 2003). Solum starts by adopting Lawrence Lessig's 'code thesis', which argues that computer software, and network architecture should be recognised as being the prime 'regulator' of the Internet (Lessig 1999). Solum's model consists of a content layer resting above an application level which in turn rests on a transport, network, link and physical layer. The benefit of this model is that it enables lawmakers to precisely identify and isolate the incidence of regulation.

In designing the precise dimensions of a horizontal regulatory framework to address convergence, the regulatory framework for 'electronic communications' introduced in the European Union in 2002 provides an extremely useful template for consideration. The central aim of the European regulatory regime was to address the impact of convergence and facilitate an efficient and equitable information society.[3] In essence, the European Union adopted a harmonised regulatory approach which regulated on the basis of two essential criteria. The first criterion related to the nature of the electronic communications service provided by a company. The second criterion related to the level of market power possessed by the company providing the service. The nature and extent of the regulation imposed was based on these fundamental distinctions. Most significantly for the present analysis, the nature and extent of the regulation was independent of the nature of the technology used, such as whether the service is delivered by a telecommunications network or a broadcasting service.

6. COMPETING POLICY CONSIDERATIONS

For the present purpose of designing effective laws to address convergence, one of the most useful elements of the regulatory debate is contained in the European Commission's *Convergence Green Paper*. This discussion paper preceded the introduction of the 2002

regime.[4] The *Convergence Green Paper* is hence potentially very instructive for the next phase of the Australian convergence review.

The *Convergence Green Paper* outlines the principles that should be considered when formulating regulatory policy in sectors affected by convergence.[5] Regulation should be specific and proportionate rather than general and all-encompassing in nature. In light of the speed, dynamism and innovative nature of the sectors affected by convergence, public authorities should be careful to not over-regulate.

The *Convergence Green Paper* commenced by stating that the new regulatory approach should seek to further the interests of consumers by providing greater choice of services, improving levels of service and lowering prices whilst protecting consumer rights. Regulation should seek to provide a predictable framework which would strengthen business confidence and encourage investment. Uncertainty as to the nature and extent of the regulation of new services could deter business confidence. This does not preclude evolution of the regulatory framework but it requires that changes to the regulatory framework be consistent with predetermined criteria. Regulation should seek to allow an opportunity for all players to participate in a converged information society. Finally, the *Convergence Green Paper* noted that independent regulators were central to the success of managing a converged industry. As the general trend is to a lighter regulation, the increased competition facilitated by convergence required an effective and independent regulator.

Three distinct options for regulatory development were considered. The first option was to build on current structures. The existing vertical regulatory models would be retained, with different forms and intensities of regulation continuing to apply to the telecommunications, broadcasting and information technology sectors. Regulation would be extended on an *ad hoc* basis to meet the challenges of new technologies and services. This option would minimise the need for dramatic change in the near future and so have an element of certainty that would be likely to encourage investment. However, such an option would entrench existing anomalies in the regulatory structure, which might deter investment.

The second option was to create a new and distinct regulatory model for new activities which would co-exist with certain components of the existing broadcasting and telecommunications regulator frameworks. This would require the legislators to identify and isolate 'new' services and activities which cross traditional boundaries and subject them to a new lighter regulatory regime. As converging markets typically produce 'high value' activities, this approach would be useful in providing tailored regulation for these services. The regulation of traditional core telecommunications and broadcasting activities could be refined at a more gradual pace.

The third and most dramatic option was to progressively introduce a single regulatory regime to apply to all existing services and new services. This course would not require that all laws be rewritten. It required that all laws be reassessed to remove inconsistencies within and across sectors and were flexible to adapt to changing technologies. Whilst this option was the most far-reaching, the Green Paper explained that it need not be disruptive. The approach could be gradual with initial changes being implemented in key areas where it was important to have a consistent regulatory regime.[6] Network operation and access were provided as examples of priority areas for reform. The central difficulty identified with this approach was that of 'carving out' the new activities, and determining which would be subject to the new regime. One possible approach was the so-called 'negative approach', which entailed simply identifying those activities which were neither telecommunications nor broadcasting. Examples provided were that of Web-TV, the Internet and the operation of conditional access systems.

In the result, the European regulatory framework for the communications sector, agreed upon by The Council of Ministers on 14 February 2002, adopted the second approach. The overarching aim was to provide a single regime to regulate all communications infrastructure and services, with the regulation consisting of sector-specific legislation, recommendations and various non-binding guidelines, in conjunction with the continuance of existing competition rules of the European Commission Treaty.

7. THE NATURE OF THE ELECTRONIC COMMUNICATIONS FRAMEWORK

Specifically, the regulatory framework implemented in 2002 consisted of four central directives:

(a) A general directive which outlined policy objectives applying to a common regulatory framework for electronic communications networks and services (the '*Framework Directive*');

(b) A specific directive on the authorisation of electronic communications networks and services (the '*Authorisation Directive*');

(c) A specific directive on access to, and interconnection of, electronic communications networks and services and associated facilities (the '*Access and Interconnection Directive*'); and

(d) A specific directive on universal service and user rights relating to electronic communications networks and services (the '*Universal Service Directive*').

Directives on telecommunications data protection and privacy and electronic communications completed the regulatory package. The Directives were supplemented by a series of non-binding guidelines and recommendations. Of special significance for the present discussion is the *Recommendation on Relevant Products and Services* (the '*Recommendation*') which sought to provide guidance on identifying operators with significant market power. Finally, the existing competition rules of the European Commission Treaty were expressly incorporated into the *Framework Directive*.

The *Framework Directive* provided an overarching framework, whilst the specific directives addressed matters of authorisation, access, universal service, and privacy. The *Framework Directive* contains critical definitions which applied to the interpretation of all the Directives. The definitions of 'electronic communications networks,' 'electronic communications service,' 'provision of electronic communications network,' 'public communications network,' 'associated facilities,' 'conditional access system,' 'user,' 'subscriber,' 'consumer,' and 'end-user' were all contained in this Directive. The *Framework Directive* also required each Member State to create a national regulatory authority (the 'NRA') to oversee the new electronic communications regime. The powers and duties of such a national regularity authority were delineated in the *Framework Directive.* Therefore, the regulatory model implemented by the European Union in 2002 created a new and distinct regulatory model for new activities which would co-exist with certain components of the existing broadcasting and telecommunications framework.

For the purposes of the new framework, 'electronic communications networks' was defined to mean 'transmission systems which permit the conveyance of signals by wire, by radio, by optical or by other electromagnetic means, including satellite networks, fixed and mobile terrestrial networks, networks used for radio and television broadcasting and cable television networks'. Interestingly, whilst the definition listed a variety of transmission technologies, the use of 'including' ensured that the definition would be able to embrace future technology. An 'electronic communications service' were defined to encompass a service, normally provided for remuneration, which consist in the conveyance of signal on electronic communications networks. Service providing, or exercising editorial control over, content transmitted using electronic communications networks are services that are excluded.

It is however noteworthy that the regulatory framework was not overly ambitious in ambit. It was limited to the regulation of transmissions and did not seek to regulate content. The European Council Directive 89/552/EEC of 3 October 1989 on the content of television programmes continued to govern content. Similarly, the framework did not seek to regulate most forms of equipment. Radio equipment, telecommunications terminal equipment and the

mutual recognition of their conformity continued to be subject to the Directive 1995/EC. Furthermore, electronic commerce was not covered by the regime and continued to be subject to the *Directive on Electronic Commerce,* 2000/31/ European Commission.

Commentators such as Whit and Frieden have noted with approval the European Union framework as providing an illustration of regulation based on a horizontal layered model. Whit further notes that the European Union's framework presents an explicit 'endorsement' of the horizontal way of thinking about regulatory policies (Whit 2004, 634).

The 2002 electronic communications framework had in-built provisions for review and revision. In November 2007, pursuant to these provisions, the European Commission issued a series of legislative proposals for updating the original Framework. The *Citizens Rights Amending Directive* and the *Better Regulation Amending Directive* contained the review proposals. These directives were accompanied by regulations which established the new Body of European Regulators in Electronic Communications, the successor of the former European Regulators' Group. In November 2009, revisions were introduced to improve the operation of the framework for businesses and consumers. A central objective of the revisions was to decrease the burden of regulation. Accordingly, the number of markets which are deemed to require *ex ante* regulation (i.e. markets in which it is presumed that there are problems relating to the level of competition) was significantly reduced from an ambitious 18 to 7. However, national regulators continue to have the responsibility of regulating markets in which significant market power is identified, irrespective of whether they are on the list of sectors deemed to require *ex ante* regulation.[7]

CONCLUSION

Therefore, in an environment of converging markets and services, it is no longer viable to retain a vertical silo-based distinction between broadcasting and telecommunications. It is important to adopt a horizontal layered regulatory model that allows law makers to design flexible and transparent laws that precisely target the operations to be regulated, and have the capacity to adapt in response to technological evolution to ensure that the benefits of convergence are maximised both for all industry participants. Especially in an e-commerce environment, being able to delineate and separately regulate different areas of operation may provide an accurate and productive public policy. Furthermore, as Ismail notes, a layered model can assist policymakers in targeting regulation needed to further objectives such as fostering competition needed at the core or lower levels of the network, whilst also preserving and enhancing competition at the edge or higher levels of the network (Ismail 2003, 672).

The *Emerging Issues Paper*, whilst endorsing 'layers analysis,' and stating that it is appropriate to adopt a horizontal framework, cautions that there are practical obstacles to the implementation of such a framework. In this regard, the *Framing Paper* expressly notes the value of considering 'international approaches' in designing Australia's framework (p 18). Moreover, even scholars who strongly support a movement from vertical to horizontal laws have raised concerns about the political feasibility of such a transition. Entman, for example, notes that the challenge will be to develop the optimal means of converting insights into concrete and effective policy (Entman 2002). In a different context, that of the application of intellectual property laws to technology sectors, William Fischer comments on the need for technology policy to stay within the 'zone of political practicability' (Fischer 2001, 26).

In such a context, the regulatory framework for 'electronic communications' implemented by the European Union in 2002 provides a useful template for Australian policy and law makers. It forms an operational model of the horizontal layers model of regulation, and as such is potentially instructive for the purpose of designing communications laws which effectively address the effects of convergence in the broadcasting and telecommunications sectors.

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ENDNOTES

1. *See further* Weiser, P, 'Law and Information Platform,' (2002) *Journal on Telecommunications and High Technology* 1 at p 12.

2. *See further* Hafner, K, and Lyon, M, *Where Wizards Stay Up Late: The Origins of the Internet,* 1996, at p 47; *See further* Wu, T, Applications Centred Analysis (1999) 85 *Virginia L Review* 1163 at 1192.

3. *See further* B Clements, 'The Impact of Convergence on Regulatory Policy in Europe' (1998) 22 (3) *Telecommunications Policy* 197 for an overview of the Green Paper and the consultation process leading up to its release.

4. *See further* J van Cuilenburg, 'Media Policy Paradigm Shifts', (2003) 18 *European Journal of Communication* 181, for a discussion of three paradigmatic shifts in communications and media policy.

5. *See further* I Goodwin and S Spittle, 'The European Union and the Information Society: Discourse, Power and Policy', (2002) 4 *New Media and Society* 225, for a discussion of the policy debate surrounding the creation of an information society within the European Union.

6. *See further* D Young, 'Discourse on Communication Technologies in Canadian and European Broadcasting Policy Debates', (2003) 18 *European Journal of Communication* 209, for a consideration of options for reform through a theoretical model that incorporates the effects of technological determinism, technological democracy and technological nationalism.

7. The November 2009 revisions were required to be implemented by Member States by May 2011. *See* Department of Business Innovation & Skills, *Implementing the Revised EU Electronic Communications Framework*, September 2010, for an overview of the process of implementing the obligations in the United Kingdom.

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