Regulation in a Converged Environment

Chris Chapman, Chairman and Chief Executive, Australian Communications and Media Authority, delivered the keynote address at the Charles Todd Oration in Sydney, on 30 August 2012.

In 1870, as now, the world was at a then global tipping point for technologically enabled change. The innovative technology of the day, the telegraph, was seen as the 'key to prosperity and wealth' for the then still separate Australian colonies. With the building of the Port Augusta to Darwin telegraph, Charles Todd connected Australia to the world and, with that, global change.

The communication network that the telegraph established across and beyond Australia has been characterised as the 19th century equivalent to our 21st century broadband. Charles Todd refused to be tyrannised by distance and pioneered our electronic connection with the world, becoming perhaps our very first internet pioneer.

The Charles Todd oration is an opportunity to commemorate our global connectedness and celebrate the pivotal role that communications technology plays in continuing to build and shape our ever-deepening engagement with the world. And later in my oration, I'll also highlight the modern challenges we (all of us) will need to address to keep the human face of our sophisticated communications technology as simple and robust as it was in Charles Todd's day.

The ACMA conducts its diverse regulatory activities across a continent that has a number of distinct characteristics.

Our electronic connection with the world, commencing with Charles Todd's telegraph and continuing with the optical fibres and satellites of the present day, means that notwithstanding our unique Australian characteristics and circumstances, we can nonetheless equally network and interweave with and benefit from global developments, and globalisation itself.

Thomas Friedman captures the global state of play well in his latest book, *That Used to be Us: What Went Wrong With America? And How it Can Come Back*. He sees two of the great challenges facing his country (and it applies equally to ours) as firstly, adjusting to the ongoing IT revolution, and secondly, understanding and working with globalisation. He sees these, in fact, merging into one major challenge, which he calls the 'hyper-flattening' of the world.

With this hyper-flattening, many are of the opinion that we have now begun to enter what could be termed a 'hyper digital' era, combining the power of ICT with ubiquitous high-speed broadband, enhanced by analytics, semantic systems, cognitive computing, agent technology and the like.

Australia is right now building out a broadband network to engage with, and grasp the opportunities of, this future global digital world. The technological changes leading us to this point have often been described as 'convergence'. Some history is important here, as today I want to start to move the discussion forward from a focus on convergence, as we have come to understand it, to the broader and more nuanced idea of a networked society.

The ACMA was created to be a 'converged' regulator way back in 2005, designed to bring together the threads of the evolving communications universe, specifically the convergence of the four 'worlds' of telecommunications, broadcasting, radiocommunications and the internet. How breathtakingly simple that intent must have seemed.

The four core principal acts which relate to these 'worlds' – the Radiocommunications Act,[1] the Telecommunications Act,[2] the Consumer Protection and Service Standards Act[3] and the Broadcasting Services Act[4] – are now decades old and have become increasingly difficult to apply in this 'converged' …now moving towards a networked society … environment. The age of these Acts is perhaps most usefully illustrated by the observation that they were made before the internet took off in Australia.

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Due to the rapid changes that, as I have said, sped across our landscape, those core Acts have then been incrementally supplemented with amendments, new schedules, a range of purpose-specific Acts (such as the Spam Act 2003 or the Interactive Gambling Act 2001) or ministerial determinations. These additions have been made reactively (that is, in response to developments in such seemingly disparate arenas of hardware, software and connectivity, changing social attitudes and behaviours, enhanced citizen expectations and/or globalised economic shifts).

In the majority of cases, these changes have been 'tacked on' to existing legislative constructs (that is, those established in the core Acts). And it logically follows, for this reason, that every supplementation to a core Act is inevitably based, to some extent, on dated concepts set out in that legislation. As all of us are aware, the most recent attempt to grapple with this from a more holistic perspective was the recently completed Convergence Review. The government is currently considering the recommendations of that review before responding and so, as a portfolio team player, I proffer no pre-emptive suggestions.

Suffice it to say, however, that we at the ACMA, meanwhile, have simply been getting on with our day job while continuing to build on our informative and highly valued and cited work in the convergence space. These two threads, doing our day doggedly and relentlessly and yet bridging to the future with forward-thinking work programs such as spectrum re-farming, numbering plan reform and telco service paradigm shifts, builds a solid case of delivery on our adopted purpose; 'making media and communications work in Australia's national interest' – a sentiment that would put a smile of

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1 *Radiocommunications Act 1992* (Cth).

2 *Telecommunications Act 1997* (Cth).

3 *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth)

4 *Broadcasting Services Act 1992* (Cth).

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Charles Todd's face, given his own immeasurable service to Australia's national interest.

And similarly early in my term as Chair, I set an aspirational standard for the ACMA (as a convergence-oriented organization) to be measured against in delivering on that purpose, namely:

To be, and to be recognised as, the world's best converged regulator.

I provocatively adopted this goal to stretch the organisation and to drive the ACMA towards world's best practice. The standard has been part of ACMA internal transformation and business planning activities over the last four or so years. It has been articulated externally in our annual ACMA rolling three-year corporate plan since the 2009–12 plan was published in 2008.

Because measuring converged communication regulation performance in a globally valid way is inherently problematic, we chose to take a narrative approach using descriptive case studies rather than one of meaningful measurement.

The narrative framework of our assessment captures the fundamental tasks of any regulator in a convergent environment, central to which is delivering outcomes in the public interest. I personally feel we can legitimately claim, with our current one-third assessment, to have already gone a considerable way to meeting our standard. In any event and far more importantly, I think this leaves the agency well positioned to be the future regulatory centre point for a digitally connected Australia and its evolving networked society. We have the strategic vision, we have demonstrated capability right across our bench and we have the energy to deliver on that positioning. So expect no respite from the ACMA, especially as we further live to our brand strapline of 'Communicating, Facilitating (and if all else fails) Regulating' … the 'if all else fails' bit does not actually appear in the written version of the strapline!

This notion of work in the public interest is internationally common ground. Neither Australia nor the ACMA is divorced from the globally shared imperative to come to terms with public interest issues in an environment of communications and media convergence. I earlier touched on the Convergence Review. An important, but perhaps not obvious, element of the ongoing convergence debate is that 'convergence' itself is not a stable concept.

Original concepts of convergence stemmed from digitalisation, and no more, which during the 90s broke the nexus between the shape of content and the container which carried it–'for example, a voice call was no longer solely defined by being carried on a plain old telephone network. This has meant that regulation constructed on the premise that content can be controlled by how it is delivered, or that delivery systems are defined by the user service they carry, has increasingly lost its force, both in logic and in practice.

In fact, it would seem that markets have almost totally now digested digitalisation with the ACMA, as the regulatory facilitator, playing a critical role in completing important parts of a practical digitalisation project (the switchover to digital television). However, the challenge of digitalisation has not been fully addressed legislatively and indeed this challenge appears to have been compounded by (in fact, run over by) the emergence and dominance of IP networks in the last decade. This has meant content has become increasingly non-linear, interlinked and 'uncontained' while people increasingly

expect to connect and communicate seamlessly – anywhere, anyhow, anytime (I guess, when you think about it, the 21st century equivalent of Charles Todd's intent). We need to acknowledge the inevitable movement towards an even more complex communications world, where network elements can and will be emulated in software (think 'virtualisation'), leading in turn to an ever more intricate and subtle interconnection between networks, devices, services and content.

Reform of the current arrangements can perhaps aim to bring the current system 'up-to-date' with digital, and maybe grapple with the early impacts of the web. However, things have changed quite radically over the last six or so years. And I suggest we (all) must plan for further radical change over an indicative lifespan of any proposed regulatory reform process. Sitting where I sit and having daily intimate knowledge of the various influences and dynamics and their interplay with current Acts and regulatory constructs, that process needs to make use of broader concepts of convergence than those we have only just got used to, concepts that take into account the fact that we are dealing with deeply complex, indeed ambiguous, changes in communications and media today. For example, is network functionality hardware or software, is a voice-call a service or now just an app (and I will return to that query).

It seems unlikely to me that we will settle into a new agreed order or commercial equilibrium in media and communications any time soon, any more than we will be able to maintain the status quo of 'industrial' communications and media …even if we wanted to. We (and I mean here regulators and policy-makers) have almost come to terms with the concept of 'online' media as opposed to the 'offline' traditional media. This is essentially the impact of digitalisation and the first wave of IP networking, aka the World Wide Web. But that is more than a decade-and-a-half old! The split is no longer binary – 'online' has already moved on through a number of iterations.

As access to the internet becomes ubiquitous, and the internet migrates to other platforms (such as television sets), the content regulation situation has become increasingly anomalous

The internet is now starting to deliver on its fuller media distribution potential with the advent of always-on broadband, which is capable of delivering broadcast television (and better) quality video. The internet has also created global reach for such audiovisual material. I said a minute ago that we have almost come to terms with 'online' because developments in social networking are changing the game away from the 'online' website world as much as from the 'offline' world, as commercial content is increasingly embedded within the extensive context of social network messages and user-generated content. Commentators recently referred to the London Olympics as the first social media games …with athletes interpolating their athletic endeavours with social media PBs. This audience doesn't, but the wider audience forgets that it's a generational thing.

As access to the internet becomes ubiquitous, and the internet migrates to other platforms (such as television sets), the content regulation situation has become increasingly anomalous. Indeed broadcasting and newspaper operators are increasingly offering internet-based services to complement their other offerings. Many individuals in networks now access and link to the more persistent elements of content published to 'audiences', freely sharing their experience with others and spreading the influence not only of the original material but also adding the strength of a recommendation (positive or negative). Traditional media are now immersed in and mining the world of social media for updates and breaking news.

Networks present a much greater regulatory challenge than linear situations such as broadcasting or simple phone calls, since the latter offer relatively easy 'points of control'

Crucially, from the traditional perspective of a public interest regulator, this network of citizens, freely expressing their views, does not have a single control point, such as a transmitter (or the equivalent of Todd's telegraph Morse code equipment) … should intervention be required. Networked media do not exert their 'influence' in a singular or directional way. Networks present a much greater regulatory challenge than linear situations such as broadcasting or simple phone calls, since the latter offer relatively easy 'points of control'. The communications and media space is continuing to evolve, and our regulatory response is simply going to need to evolve with it, including an ongoing reassessment of the pros and cons, the social good, of when intervention is required and how it is effected.

So I think this evolution drives a need to empower the regulator to be flexible and rapidly adaptive to changing industry circumstances (which may involve more rapid 'fit for purpose' intervention and may equally, if not more so, involve regulatory discretion and the exercise forbearance). This empowerment will be a crucial part of the way forward. The ACMA is not, however, just sitting and waiting for this to be done for us, or to us. Recognising and acting on these necessities in today's world, we are, as I've assured you, engaged, energetic and very much alive to the need to continuously reinvent ourselves.

Convergence in its broadest sense sits behind all the challenges and initiatives we undertake within our exceptionally broad remit, encompassed by our patchwork legislative mandate. And just to assist your powers of recall, highlights of our recent work encompass:

- the detailed preparatory work on the 700 MHz and 2.5 GHz radio spectrum to deliver the digital dividend, and our pursuit of providing substantially more broadband spectrum through a relentless program of 're-farming';

- the fresh, 'first principles' block configuration approach we have taken to the digital dividend broadcast spectrum restack process;

- our recognition of the compelling necessity for Australian citizens and consumers to be much better educated about both the opportunities of the digital economy and the threats in the online and social media worlds;

- exploration of the unchartered waters for the ACMA (and perhaps indeed for all industry participants) in 'Phase 2' of the NBN;

- energising the long overdue necessity for the telco industry's customer service and complaints-handling performance to be reset (which I will return to below); and

- our pre-emptive initiative for fresh approaches to our telecommunications numbering arrangements as the inevitability of unified communications marches on.

It is to the latter aspects of telecommunications that I will now turn, since in my view, thinking about the future of voice services is a useful lens for looking at these deep running 'convergence' changes, and one that is relevant in the context of the telecommunications legacy of Charles Todd.

Exactly a year ago, the ACMA released *Broken concepts –'The Australian communications legislative landscape,* which highlighted the ever-increasing strain on old legislative and regulatory concepts struggling with new technology, and this, along with a companion piece titled *Enduring concepts – Communications and media in Australia* neatly framed the Convergence Review's challenges. That review alluded to (although did not ultimately conclude with) an approach which focused on a 'converged structure' based on four layers – infrastructure, networks, content and applications, and devices.

I think using a layers analysis of convergence is useful for the immediate future and, as an example, it helps makes sense of the way in which voice telephony is increasingly being transformed into 'just' another user app on a smart device or within a social media context, alongside a myriad of other more or less useful apps. The vendor of the voice app can easily be substituted with another, or with another channel of communication altogether.

Such simple telephony apps could be seen as important but low-value applications running on top of existing data infrastructures, rather than as a dedicated, premium value end-to-end service. Indeed, Ovum has recently estimated that 'over-the-top' voice and messaging applications cost traditional telecommunications operators worldwide 13.9 billion dollars (or nine per cent of their revenue last year).

The nature of voice application is also growing beyond simple 'calls' and now voice communication often sits in the context of other media and ways of messaging; for example, chat between players of an online game. 'Telephone numbers', as such, are slowly losing their special place and are becoming part of the web of addressing that binds the various network layers together as that precursor of unified communications.

As companies in this space scramble (or soon will be forced to scramble) for new enduring business models, Australia once again is being inexorably enmeshed in the global.

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National sovereignty is under challenge, as the location of the server is currently as relevant as a person's actual physical location. The data captured outside of government becomes perhaps more potent than government, the traditional repository of information about a country's citizens. Your search engine knows a lot more about you than your local registry of births deaths and marriages, or the Passport Office. Maybe not more than the Tax Office – not yet anyway!

The heady brew of new business models, new platforms, and new forms of user interaction will continue to ferment and, as it does, will raise regulatory question marks and potentially massive challenges for government regulators intersecting with this space.

Notably, most communications services are no longer handled by one integrated entity. It is a more complex environment – a network in the new sense – and when things go wrong, it can be more difficult to identify who was responsible, what has gone wrong and in which locale the perpetrator is actually situated.

Participants in recently published ACMA research, *Digital Australians,* very interestingly, very encouragingly, confirm an awareness of the different roles that the individual, the private sector and government play to ensure that their online experience is positive. The research indicates that Australians accept their responsibility in the online environment, but they are also looking to industry and government to help them in managing that complex environment.

The ACMA decision to register the TCP Code, is a watershed event that should shift behaviour in the telecommunications landscape

This is an abiding concern for the ACMA, and I'll turn now to an example of a very specific regulatory challenge, a microcosm if you like of the issues that arise in a networked society. Our recent public inquiry into customer service in the telco sector, known as *Reconnecting the Customer,* concluded that co-regulation had not been working effectively in the interests of consumers in an increasingly complex environment of platforms, products, services and suppliers.

Consumer complaint levels had been far too high and poor customer care (both directly and indirectly) drove many consumers to complain. We observed great complexity in the packages or bundles offered by service providers, as well as their pricing. Even from a single service provider, the task of deciding the bundle that best matches a consumer's individual preferences for type of service, quality, speed, handset and volume of usage is complex. Comparing packages across service providers is concomitantly more complicated – not only do a number of packages from each of a number of service providers have to be compared, but the information about essentially the same service is provided in different ways.

Although this complexity is generated by service providers, it partly responds to consumers' wants (for example, access to different services on one device), and it provides potentially attractive benefits for consumers, along with uncertainties and risks. It has profound impacts on the behaviour of both consumers and service providers. We found work in the field of behavioural economics particularly useful in considering ways to assist consumers navigate this complexity. We noted that consumers:

- can only take so much product information into account and are susceptible to advertising;

- are likely to copy the decisions of friends, rather than make time-consuming independent enquiries;

- are unlikely to dig deeper into fine print; and

- can be short-sighted in their purchasing decisions.

As a consequence, each of these factors increases the likelihood that a consumer will make a choice that turns out to be a comparatively poor one in hindsight and the ACMA's resultant conclusions have been designed to drive product offerings in this particular domain that are more comprehensible and help consumers avoid these and other behavioural traps. It is an aspect of human behaviour by people, both as consumers and citizens, that will need to inform the possible evolving interventions in other complex areas of media and communication.

In the ACMA's final inquiry report, we also noted that this so-called 'bounded rationality' is no criticism of the behaviour of consumers or citizens, but merely describes the findings of current empirical research in behavioural economics.

One important outcome from that inquiry has been guidance to the formulation of a vastly improved Telecommunications Consumer Protections Code (the **TCP Code**). The ACMA decision to register the TCP Code, is a watershed event that should shift behaviour in the telecommunications landscape.

It provides a comprehensive set of enforceable safeguards for Australia's telecommunications consumers. All of the primary protections are contained in a single document and the protections are aimed at addressing key points in the customer/provider lifecycle. In other comparable markets such as the USA, the United Kingdom and New Zealand, there is no single telecommunications instrument of consumer protection or of such magnitude.

The telegraph for which Charles Todd is so justly famous, while unquestionably advanced for its time, was nonetheless simple and robust. The ACMA is hopeful that as this code is internalised and operationalised by industry, co-regulation can contribute effectively to making the networked world of the future 'work' as effectively and as simply as the telegraph for the benefit of all parties; consumers, citizens, industry and government. It is in large part directed at empowering members of our networked society to protect their own interests – arming them with the information they need to get the responses they need from whoever their provider may be – as well as requiring service providers to put in place the structures necessary to provide what their customers will now be empowered to demand.

More significantly, the code is intended to bring about a cultural shift in the way providers go about customer care. It's now up to industry to prove its mettle. The ACMA for its part will be stepping up the compliance and enforcement work necessary to make the TCP Code work (that is, really work) in the interests of consumers and establish a new balance in the way the industry deals with its customers. I am hopeful that most players have bought into the necessity to lift their game both individually and collectively – we are, and will be, watching.

It is also my view that our close attention will be needed anyway – the digital economy marketplace is being turbo-charged (as I've repeatedly highlighted today); and as I've also highlighted, it is increasingly fast and transaction dense, operating in terms of value networks rather than value chains, with embedded international links and nodes.

And again, my overriding proposition – what is, and will be needed, is regulation that is 'fit for purpose', intervention that is enough to do the job in a specific circumstance, and no more. This means regulation that is evidence-informed and that engages all stakeholders; industry, consumers, citizens, legislators, and ourselves as regulators.

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The current, let alone emerging, communications and media environment does not allow a simple singular answer to how we should be regulating communications and media today – let alone in the hyper-connected, networked society world of tomorrow. The environment is too multi-dimensional, too heavily textured for that.

And thank you again for the honour of presenting this year's Charles Todd Oration, which I've interpreted as a compliment to the consistently fine work that the ACMA has been delivering over the last several years. I hope my remarks have given you some cause for reflection.

This is an abridged version of the speech delivered by Chris Chapman at the Charles Todd Oration on 30 August 2012. An expanded version can be located on the ACMA website at http://www.acma.gov.au/webwr/_assets/main/lib410189/chris_chapman_speech-charles_todd_oration.pdf