

Responses to Digital Economy Future Directions Consultation Paper

By Thomas P. Koltai, on Behalf of Perceptric Pty. Ltd.

Introduction

My responses are based on:

- A formal education in Economics
- Internet experience garnered since September, 1983,
- As founding architect of both INTIAA and the AIA.
- CEO of Ausnet Services, Internetworks Inc., Ourworld Global Networks, Geko Internet and ISP Limited.
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My publishing history include

- Chips 'n Bits Magazine, 1992-1994
- Internet Australasia Magazine, 1994 – 1995
- More recently my Blog articles available at www.perceptric.com

My varying involvement in multiple in-country internet initiatives include

- Australia
- China
- Hungary
- Iran
- Nauru
- The United Kingdom
- The United States.

More recently I have been involved in providing analysis and evaluation on both the rhetoric associated with P2P technologies on the one hand and the financial impact, both positively and negatively to the Music Recording and Motion Picture Industries on the other.

This document is written in the first person, with personal opinions expressed along with anecdotal examples.

Some of my concepts are visionary in nature,

The basic economics of a digital economic future for Australia can be summarised as follows:
The constraints are bandwidth, trust and sustainability which, if overcome, will produce the benefits of price, convenience and lifestyle, or:

$$\frac{b + t = S}{p + c = L}$$

With the result being a *Sustainable E-Commerce Enhanced Lifestyle*.

The introductory comments for the paper are included so as to confirm my understanding of the Government's desire to obtain answers to its questions without relying on the basics of the foregoing formula.

A. Introduction

The Government appreciates that there are currently several live tender and funding processes underway that have implications for how we will use the internet in future—specifically, the National Broadband Network (NBN) process and the internet service provider (ISP) filtering 'live' pilot.

The *Future Directions* paper is not intended to address any matters relating to the NBN process, which is a live, competitive process bound by probity considerations. In a tender process such as the NBN it is of critical importance that integrity and confidentiality is maintained to ensure that the commercial and policy objectives of the Australian Government are not compromised. This means that the Australian Government is not in a position to comment or speculate on the outcomes of the process, or to disclose any information not already in the public domain. In addition, the paper is not intended to address any matters concerning the ISP filtering 'live' pilot.

Currently the structure of the comments called for do not currently address the key ingredients that I believe are necessary for a balanced approach to the NBN process, as noted in the formula above.

As this may be an oversight I am addressing this document to include those key ingredients that have not been included in the formularization of the questions, rather than letting the potential for an outcome to be constructed on an incorrect or incomplete hypothesis.

The questions in this document assume the availability to all Australians of a workable, "safe" affordable bandwidth infrastructure that by its very nature encourages subscription to and use of, existing e-commerce initiatives.

However, that is not currently the case, nor will it be, if left solely in the hands of industry to solve. It is the very nature of industry to utilize predatory pricing to squeeze out competition (e.g. Telstra & Foxtel –v- Optus & Optus Vision) leaving the country with a total lack of competitive options.

Since 1994, (and Al Gore's reference to the "Information Superhighway") parallels have been drawn between the Internet and National Highways. Highways are the distribution lifeblood of the nation. Tollways of any kind, on the other hand, restrict the smooth flow of traffic creating delays, added expense, confusion, and ultimately anger and mistrust.

It is my opinion that the Government needs to author and shepherd an open broadband environment free of the possibility of toll booths and/or anti-competitive behaviour.

At the very least the ACC needs to be given the power to investigate and prosecute bundling delivery of any "naked DSL" option that includes the mandatory provision of a phone service. (e.g.: DDS – Digital Data Service requires a circuit identity number – no phone number – and Telstra bills it quite capably.)

According to the ABS 2006 (8146.0) *HOUSEHOLD USE OF INFORMATION TECHNOLOGY AUSTRALIA*, Australians consider that they have *less* use for the internet in 2006 than in 2002.

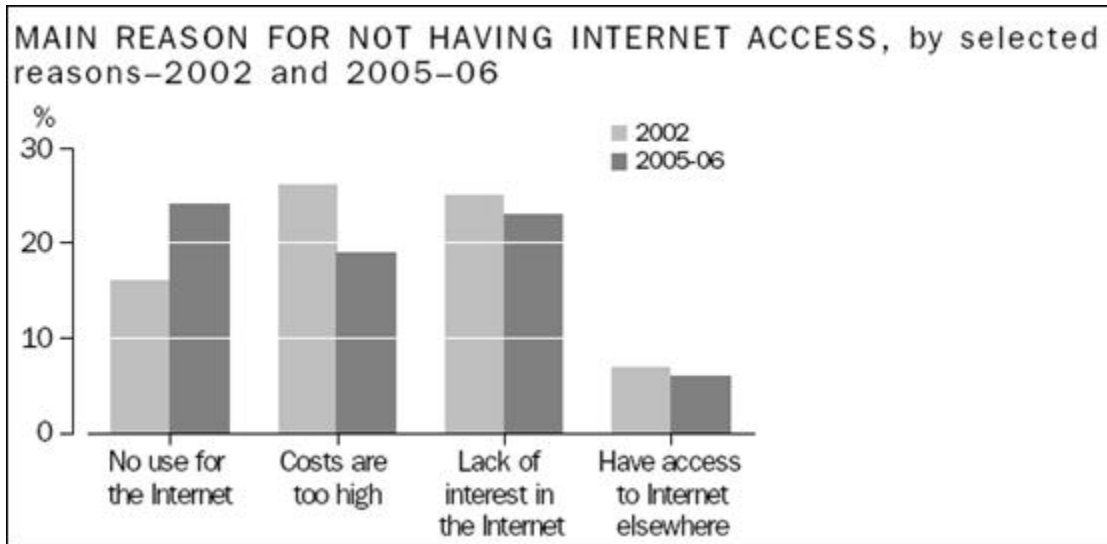


Figure 1 (ABS) 8146.0.55.001 - Patterns of internet access in Australia

This statistic of “No use for” will presumably decline as the population continues to age. However, if the Government values the ability to utilize ubiquitous connectivity by all Australians incentives should be implemented that target the older population such as:

1. Medicare refund availability at pharmacy installed terminals.
2. Chat and VOIP programs for seniors (e.g.: Retiree Club.org)

According to the May, 2008 report from ITIF, Australia is placed 12th in the OECD based on an aggregated comparison of penetration, download speed, and price per megabit per second.

The Information Technology and Innovation Foundation is a non-partisan research and educational institute - a think tank - whose mission is to formulate and promote public policies to advance technological innovation and productivity internationally, in Washington and in the states.

I quote their summary recommendations to the US Senate in total:

To encourage the development of broadband infrastructure (supply) in the United States, we recommend that U.S. policymakers take the following steps:

1. Enact more favourable tax policies to encourage investment in broadband networks, such as accelerated depreciation and exempting broadband services from federal, state, and local taxation.
2. Continue to make more spectrum, including “white spaces,” available for next-generation wireless data networks.
3. Expand the Department of Agriculture’s Rural Utilities Service Broadband Program and target the program to places that currently do not have non-satellite broadband available.
4. Reform the federal Universal Service Fund program to extend support for rural broadband to all carriers, and consider providing the funding through a reverse auction mechanism.
5. Fund a national program to co-fund state-level broadband support programs, such as Connect Kentucky or North Carolina e-NC Authority.
6. Promote the widespread use of a national, user-generated, Internet-based broadband mapping system that would track location, speed, and price of broadband.

7. State and local governments should take action to make it easier for providers to deploy broadband services, including making it easier to access rights-of-way.

To encourage the growth of consumer demand for broadband, we recommend that U.S. policymakers take these steps:

8. Support initiatives around the nation to encourage broadband usage and digital literacy.

9. Fund a revitalized Technology Opportunities Program, with a particular focus on the development of nationally scalable Web-based projects that address particular social needs, including law enforcement, health care, education, and access for persons with disabilities.

10. Exempt broadband Internet access from federal, state, and local taxes.

11. Support new applications, including putting more public content online, improving e-government, and supporting telework, telemedicine, and online learning programs.

By adopting these recommendations, U.S. policymakers would give broadband providers the economic incentives to invest in broadband infrastructure both in rural and urban areas of the country and give consumers the incentives to subscribe to broadband, particularly higher speed broadband.

History – A Lesson in what not to repeat.

Past governments, with an eye to maximisation of short term advantages to the Australian tax payer may have thrown away the baby with the bath water, with the assignment of control of the last mile local loop to Telstra.

This has left Australia with no neutral options as to the provision of an easy economic destination for its Broadband initiative.

In respect of the initial comments in the Introduction here-to-before, my key observation is that under the Governments planned NBN the proposed technology does not address the reality that only fibre to the home and useable ISM spectrum will be a long term adequate infrastructure play.

As an alternative, rather than implement a second hybrid Fibre/Coax/DSL solution for the country, I would strongly recommend that the Government prioritize an analysis of unallocated spectrum in the 2.6-3.4 GHz range – suitable for the interconnection of mobile and personal computing devices.

My contention is that since the previous government included the last mile copper in the Telstra sell-off, it left us with a legacy monopolistic approach to the last mile. It is therefore the Government's responsibility to right this wrong.

An article by Mr. Richard Chirgwin posted on his Blog <http://chirgwin.blogspot.com/> on Thursday, May 01, 2008 expresses what I consider to be the opinion of the majority of informed ICT professionals in Australia. (With the obvious exception of Telco and Treasury employees.).

Digital Dividend or Free Spectrum?

So what's the value of the "digital dividend"?

The question arises because that silly expression is so ineradicable in the political lexicon. A "digital dividend" is out there somewhere, we just have to (as Senator Conroy put it) "put in the hard work" and we'll reap the rewards.

The commercial data that led to America's recent spectrum auctions raising \$19 billion aren't on the public record. We don't know how many people Verizon and AT&T consider to be the addressable population of their spectrum. But the price tag provides a hint: the premium paid for the spectrum tells us that the spectrum will be used to deploy broad-based services. The "Internet socialist" ideal, that TV spectrum could deliver broadband to those without fast wired services, won't come true in America.

If we assume that the spectrum is destined for broad-based services, then population is a good way to look at the value of spectrum from the outside. The auctions raised \$19 billion; America has just over 300 million people; so the per-person value of the spectrum is about \$63.

And if that figure is applicable to Australia, the digital dividend would be just over \$1.2 billion - or three years' interest on the Communications Fund.

While \$1.2 billion is a lot of money, it's not much in terms of the total economy, which is close to \$650 billion - and there's no guarantee that investors in Australia would put the same value on new spectrum anyhow.

There was, however, a very interesting nugget in Senator Conroy's speech to the ACMA RadComms conference last week: the Ofcom estimate that radio spectrum contributed £42 billion to the UK economy. It's not actually news (the report was published in 2006), but still interesting.

Instead of focussing on the price tag, though, the employment impact is worth noting: Ofcom claimed that spectrum use contributes to 240,000 jobs in Britain, or 0.7% of the workforce. That would be about 70,000 jobs in Australia.

The way to maximise jobs growth based on spectrum would be to make spectrum applications irresistibly attractive.

If you accept that the likely "digital dividend" is going to be small (and \$1.2 billion only sounds big), perhaps the idea that the spectrum should be opened up for free (or close to it) isn't so silly. Those who entered the fray would be able to focus on infrastructure and services rather than having to design the business plan around recovering money over-spent at auction.

Look again at the US experience. What are Verizon and AT&T going to do with their expensive spectrum? Verizon is talking 4G cellular services, while AT&T is talking about a network that can support 3G iPhones.

Somehow, it's hard to wax lyrical about spectrum bought to support a network-locked toy phone (with no apology to Apple fanboys) in a new cellular network. Whatever is claimed for new mobile networks, they remain focussed on the urban market, because that's where the people are.

The widespread belief that the digital dividend will bring new rural and remote services is a delusion. Unless political thinking changes - and unless somebody pops the wishful expectation of a huge payoff to general revenue - the digital dividend will end up with the same urban focus as is clearly emerging in the US.

I might also mention the amazing lack of initiative by the Unwired Group – recently purchased by channel 7 - to fulfill the promise for the spectrum that they purchased.¹

When the Auction was announced, the then acting ACA Chairman, Dr Bob Horton, said that the Authority was very pleased to bring the 3.4 GHz spectrum to the market:

"This particular part of the spectrum offers opportunities for a diverse range of communications services, from wireless local loop to broadband Internet services, and should lead to increased competition, product and supplier diversity, and therefore benefits for consumers," Dr Horton said.

Spectrum is available in Adelaide, Albury, Bendigo, Brisbane, Cairns, Canberra, Hobart, Launceston, Melbourne, Perth, Rockhampton, Sydney, Toowoomba and Townsville and regional areas of Queensland, New South Wales, Victoria, South and Western Australia and Tasmania.

¹ <http://www.market-dynamics.com.au/Documents/3.4GHz%20Licence%20Report%20-%20Public.pdf>

A total of 100 MHz is available in each of 14 major town and city areas and 65 MHz in each of five regional areas. The spectrum will be presented as standard size lots of 3.5 MHz with the exception of two lots of 4.5 MHz in each of the 19 market areas."

I have been an Unwired customer for six years. I am still awaiting the diversity, competition and other benefits promised to customers.

Today, nine years after deployment, Unwired is available in Sydney and Melbourne only. As one of the only real alternatives to last mile copper it has languished for nearly a decade recovering a mere fraction of its original capitalisation costs and locking out its use to other possibly more entrepreneurial start-ups. The 37 million dollars provided by Intel didn't seem to help in boosting their coverage area either. ²

Unwired spokesperson Amanda Wallace said that the company was looking into which cities would get an Unwired roll-out first, but would not be announcing its decision until closer to the launch date in 2006. When the roll-out is complete, Unwired's service will be available to 66% of the population, Wallace said.

That didn't quite seem to happen.ⁱ

Austar was the other major purchaser of 3.4 GHz spectrum. This was presumably based on a strategic business plan that I was commissioned to write for the CEO, Don Hagans, in 1996. This was based on the premise that wireless could provide the last mile delivery of Broadband via 3.4 GHz together with premium Video on Demand Services.

Bob Horton's later commentsⁱⁱ on Spectrum auctions is as follows:

Acting ACA chairman Bob Horton said the ACA would be accelerating the "market-based" management of the spectrum:

"We will continue to use spectrum auctions in appropriate circumstances where demand exceeds supply," he said. "Several companies using spectrum won at auctions are achieving remarkable results that have only been possible because we adopted a market-based approach."

He most obviously was not referring to Unwired or for that matter, to AAPT.

AAPT with its 28.8 GHz spectrum, purchased for \$66.3 million, has also failed to deliver an equitable widely adopted last mile alternative.

Granted, it purchased the spectrum with a view to build a microwave tower link between major and regional cities, however engineers are adamant that alternative utilisation could be made quite easily.

Similarly Optus invested a substantial amount (\$59.7 million) and has yet to roll out a service.

Optus ready for business with LMDS network 28 Nov 2000

Cable & Wireless Optus announced that it was successful in bidding for spectrum in today's 27 GHz auction held by the Australian Communications Authority.

The spectrum is best suited for broadband wireless access, including the use of Local Multipoint Distribution System (LMDS) technology.

Chris Hancock, Managing Director, Data & Business Services, said that Cable & Wireless Optus was very interested in all access technologies that provide an opportunity to expand reach, access new customers, reduce the costs of services and allow the introduction of greater competition to the marketplace.

² <http://whirlpool.net.au/article.cfm/1535?show=replies>

There have not been any announcements about the use of the spectrum since it was purchased.

Could he have been referring to the Austar 3.4 GHz which last year was sold for a record 52 Million dollars to Optus subsidiary local loop player, Opel?

The record was the loss - 128 million dollars for spectrum that had not been utilised during the intervening years between purchase and sale.

Spectrum Licences expire in 2015, or, considered in a different manner, last 180 months. Austar sat on its spectrum licenses for 96 months, and therefore in effect lost 32 million dollars on the spectrum's current value (unless one calculates the additional population growth between 2000 and 2008).

Nevertheless I am sure that this is small consolation to Austar's shareholders.

An interesting observation on the recent sales of spectrum licenses by licensees to other licensees is the move to consolidate control of these strategic assets between several of the large incumbents.

There are a great number of commercial developments in other parts of the world that could have already been employed in Australia utilising the above spectrum to deliver a series of cost effective, broadband solutions for all of Australia.

Unfortunately, when competing with a deep-pocket group of monopolists, the price of spectrum is easily bid up to a price where the successful purchaser is unable, without additional capital-raising, to utilise the spectrum in a meaningful manner.

Possibly the Optus/Opel acquisition may have if it were able to survive the funding requirements, heralded a robust 2-30 Mb per second wireless broadband local loop to offer real competition in Australia. As may the Channel 7 acquisition of Unwired.

The spectrum game to date has been an additional taxation revenue generator for the Government but with little material benefit returned to the Australian people with the possible exception of higher prices for a longer period to pay for the exorbitant prices of unused spectrum assets gathering dust in a filing cabinet.

On the basis of the above examples, I entreat the Government to err on the side of deliverable bandwidth to those that need it most, driven by an industry (WIFI) that is devoted to getting the maximum out of what little ISM bandwidth it has been able to utilise.

Estimates of the 2.4 GHz WIFI market on a global basis exceed 1.3[US] Trillion dollars.

Translated into Australian dollars per capita, that provides a price of \$390 per man woman and child. To me that appears to be approximately the price of a home router CPE and a 15 db gain antenna for the following innovative idea:

The World of Make Believe.

In a perfect world, a Government that wants to ensure connectivity to and for its population would look at delivery of connectivity on multiple platforms.

Cell phones (the 7th Mass Mediaⁱⁱⁱ), Wireless Broadband and Fibre to the Home.

In this example – I have selected unsold spectrum in the 2-5.9 GHz range reserved by the government for lease by any carrier prepared to build the infrastructure – and based on equal representation.

The cost for the spectrum used shall not exceed \$1 per user per Mb connection speed per month – to all carriers.

i.e.: a 256 Kb broadband connection would be licensable at 25¢ per month.

This would result in an equivalent return to the Government based on user numbers – without the commercial uncertainty inherent in a fifteen year licensing environment. Minimum service levels provided would be 256kb broadband, with additional services such as QOS guaranteed VOIP and “wireless fixed line services” as a subscriber requested add-on – extending the bandwidth of course at the appropriate pro-rata licensing fee.

Infrastructure would consist of a series of towers following Australia’s main highway system with adequate fibre to the tower network to ensure that every Australian within a 35-65 km range of the tower network can obtain between 256Kb and 30 Mb per second of data services.

Each alternative tower can either be leased to incumbent telecommunications players on a leap-frog basis with the maximum quantity of towers leased by any one carrier being regulated as the total number of towers, divided by the total number of carriers. In this manner, no one carrier can dominate the spectrum, and by extension, Australian consumers.

Each carrier tendering must commit to offering an OC-48 or better interconnect regime at zero settlement at the exchange level.

Transit costs to be negotiated between the carriers – spectrum allocation should make allowance for long haul (micro-wave) alternatives (via low cost special purpose apparatus licences) to carrier fibre backhaul to lessen the potential of possible anti-competitive collusion.

- Benefits to government in this model include – shared and ubiquitous responsibility for Universal Service Obligation.
- Benefits to Telstra and Optus – USO load redistribution.
- Benefits to consumers – competitive redundant connectivity options.

Community Fibre Loops.

As an alternative – but it is my contention that this is additional too and not as an alternative; Communities can be encouraged to provide their own fibre loops.

i.e.: Home owners can form co-operative last mile telecommunications infrastructure suppliers and similar to school fetes, garage sales, cake bake-offs and other community fund-raising exercises, raise the required capital to implement Fibre To The Home.

Each home owner in the community co-operative can dig their own trench alongside the driveway from the kerb to the end of the drive way.

If everyone in Australia dug their own 450 mm deep, (average) 6 metre long 100 mm wide trench, and placed 1 or 2 (6m length) electrical conduit 15 mm pipes in the trench – preferably terminating next to the house., then nearly \$180.00 per home would be saved lowering the estimated 1997 capital cost of FTTH to \$220.00 per home for the fibre; street crossings and additional ditch-witching required on nature strips.

That’s an Australia wide saving of \$1,098,000,000. Unfortunately, this proposal would only work in the housing suburbs and not metropolitan areas.

It is my contention that most apartment buildings are now constructed with digital frames, many already with planned or existing fibre terminations. Regrettably, a great many of the digital installations are Telstra-only termination.

Upgrading older copper analogue based MDF equipped buildings has not been costed. But it would be interesting if the newer suburbs, in NSW – past Penrith, were automatically supplied with fibre.

The economy of the poorer suburbs would surely receive a technological boost and race past the inner city suburbs enabling real teleworking and additional opportunities for the mobility challenged and disabled.

Communities that achieve 51% penetration in their suburb's (areas) should be connected via federal funding to the closest exchange where they would be connected via a neutral fibre optic switch to the preferred services.

To ensure competitiveness – both in quality of service and a pricing model designed to encourage, not discourage, telecommunication product utilisation, this connection should under no circumstances ever be offered as a bundle connection to only one carrier.

The Redefinition of Business.

As we move deeper into digital commerce, interest groups will occasionally attempt to stem the tide, fearful that their business model will become redundant in a digital world.

The most obvious example of industry concern was that raised by the Postal services of various countries who were concerned that the advent of Email would extinguish their profits.

CASE IN POINT – The Royal Mail

In the United Kingdom in 1825, the cost of a sending a letter from London to Glasgow^{iv} via carriage mail cost as much as a day's wages (1sh.1½d)^v for a working man (9 shillings per week)^{vi}.

Competitors devised a route via coastal shipping to decrease this cost to eight pence, providing a saving to the working man of five pence – but at a risk of piracy and shipwreck.

Was there an outcry of anti-competitive behaviour? Only from the coach and rail operators who saw their profits disappearing as HMPO set-up a dispatch office in the Merchant Marine offices at the docklands.

Amidst fears that email would nullify the mail service, the US Postal Service in 1995, issued a set of tender documents to set-up a modem email gateway service so that people could send mail via their paid network. The postal service was needlessly concerned.

With the Internet, online shopping arrived together with a requirement for parcel delivery and the requirement for tracking parcels (albeit with some glitches in the system).^{vii}

The universal service obligation of rural parcel delivery has ensured that the Bundespost, Royal Mail, US Mail, Australia Post et al, have redesigned their rapidly evolving business models utilising external contractors for parcel delivery.

It may well be that something similar saves Telstra when they finally divorce themselves from reliance on the copper loop and change tack to adopt a wireless model as mooted in the recently released "Interim Report on a Digital Britain"^{viii}. An intent to follow the enhanced wireless broadband rollout may have been the real reason for Telstra's "failure" to partake in the governments NBN process.

Empirical data is lacking on the comparative transaction costs of conducting commerce via traditional methods: bricks and mortar store, face-to-face, mail order, telephone, Viatel, Minerva, CompuServe, Minitel and now the Internet. However, Ruth Calaghan of the West Australian newspaper obtained quotes from industry sources in 1999, including Alinta Gas, ACA Research and Telequity that indicated that Internet was proving to be the cheapest alternative to conducting business with customers:

"Every time a traditional sales representative hops out of the car to see a client it costs the business about \$300," he said." When a customer visits a branch network that is about \$25 to

\$30. The same transaction in a call centre costs about \$4 to \$8 and if the centre uses the Internet it is less than 25¢.^{ix}

I believe that everyone realises the benefits of E-commerce Now we just have to educate the population that there is a need to implement this immediately.

Acknowledgements

For assistance and explanatory interfacing from Tim Landrigan at the ABS; Brendan Vernan and Joseph Bigregorio from ACMA.

Grateful thanks to my colleague, Chris Gilbey, without who's urging, this document may never have been completed – although who failed [due to pressing commercial matters] in the 23rd hour to undertake his promised due diligence [his wording – I prefer to refer to it as slash and burn editing] of removal of extraneous anecdotal commentary.

And finally, my partner, chief cook and force-feeder, Karen. Whose patience, care and attention, actually made this submission a lot more bearable than some of my past efforts.

Operational Errata

I regret that due to time constraints I have not had the ability to edit and redistribute some of my answers against the specific questions; therefore there is some considerable overlap in many of my responses.

Tom Koltai,– Sydney, February 10, 2009

SECTION 1. Open Access To Public Sector Information

Q. 1 What markers of success can government, industry and other stakeholders establish?

A report^x by expat Sam Sheperd of the OECD suggested strongly that in countries where continual disclosure on internet security policies was made available and where Government ICT was opened to the public as in the case of Finland, positive results were obtained in consumer and industry adoption.

"In Finland, the Ministry of Finance publishes an annual review on ICT use within the Government.²⁷ The Ministry of Finance has been undertaking these reviews since 1975 as a part of its role in steering and management of government ICT and information security. The publication consists of statistical information on the total expenditures on information technology, on information technology personnel, on information technology equipment, and on information management as well as information security in government agencies. Further information on this survey, together with the indicators available, refer to Box 1."

Box 1:

Finland's ICT use in government survey, security and trust online indicators

Government agencies that provide information for the annual survey of ICT use include Ministries and Administrative Agencies operating within the governmental budget. In total these entities have about 123 000 persons working in 2 606 different units. In 2004 the total expenditure on ICT in these governmental agencies was EUR 588 millions. The number of full time IT personnel in these agencies, at the end of 2004, was about 4 000. The share of IT personnel in the total personnel in governmental agencies was 3%. At the end of 2004, there were 160 828 personnel computers in Finnish governmental agencies, which is 1.3 work stations per person.

For customer use there were about 16 000 work stations. There were 3 433 file-sharing and printing servers. The number of multiuser database and application servers was 4 840. In 2004 the survey recorded that all organisations had a Web site, 78% offered electronic forms over the Internet and half offered public services.

The 2004 survey showed positive developments in different areas of information security in Finland among government users.

Examples were found in administrative and technical information security, instructions and information security plans, co-operation between units, privacy protection, protection against attacks/viruses and contingency planning. In particular, the organizations participating in co-operational projects led by the Ministry of Finance and the Government Information Security Management Board

(VAHTI) have shown significant development and impacts. This development is measured by several different indicators:

- Percent of organisations having an *information technology management plan*.
- Percent of organisations having *information security plans* as well as percent of organisations having *contingency plans*.
- Percent of organisations having a *person responsible for IT security*. Percent of organisations having this person reporting to head management.
- Percent of organisations having a co-ordinating body for information security containing different units.
- Percent of organisations having their *information security instructions* scoping all the important areas of information security.
- Percent of organisations having the e-mail policy accepted by the Top Management and staff informed.
- Percent of organisations having descriptions of online registries on their Web pages.

- Percent of organisations having the privacy protection policy on their Web page.
- Other indicators: participation in international ICT security co-operation.
- Nearly all organisations had an anti-virus system in use in all computers.
- Nearly all organisations carried out “anti-virus checks” and “virus-deletions” before delivering e-mail to users.
- Other mechanism followed: cryptography in different areas, IDS: in use/planning/no.

The survey also included questions on problems caused by IT security attacks or virus programs and so forth. Examples of these are:

- Percent of organisations where External IT security attacks had caused special actions in the previous 12 months.
- Percent of organisations where, due to a virus, a system or a part of it had been out of use at some stage in the previous 12 months.

The survey typically asks respondents to answer “in use”, “planning” or “no”, in relation to eGovernment and the security of interactive eGovernment applications for the following:

- Percent of organisations having their own *interactive eGovernment service in use* and percent of organisations planning these.
- Percent of organisations having PKI-based authentication or digital signatures in use of their interactive eGovernment applications. Percent of organisations planning this kind of services.
- Percent of organisations having one-time password based authentication standard in use of their interactive eGovernment applications (standard used first in banking sector and currently widely in different sectors, called TUPAS). Percent of organisations planning to implement this kind of service.
- Percent of organisations delivering their interactive eGovernment services to mobile user interfaces and percent of organisations offering their customer channel to pay online in their interactive eGovernment services.

Q. 2 How will we know when we have maximised the potential of Australia’s participation in the digital economy?

Preamble

This question reminds me of the little boy in the back of the car asking –“Are we there yet “

For instance, the reality is that for some Australians the value of the Internet “beacon” will fail to light up, so we need to consider this in defining success metrics.

Bill Neidjie, a tribal Elder of the Gagadju Tribe in the Northern Territory, who I know personally, is someone who has no interest in ever connecting to the Internet.

Bill and his fellow elders manage the Golden Waters Motel and tourist destination. Bill would far prefer to play his guitar and tell stories of the dreamtime. In Bills’ opinion computers steal the souls of the young men of the tribe by showing them the traps of the cities and make them forget the dreamtime.

Bill thinks the Internet is a bad thing. Bill and quite a few of his indigenous peers will steadfastly refuse new technology that might breach their traditional beliefs.

Persons like Bill belong in a separate category and target adoption numbers should be adapted accordingly.

Nearly Connected.

According to the ABS, we are at almost 100% of potential take-up of internet in Australia with the balance not desiring or being unable to afford to connect.

The theorem of diminishing returns does not necessarily apply to this question, in the manner that it has been posed.

ICT is a process of ongoing improvement in performance, output and, by necessity, redesign of existing strategies to take advantage of the improvements.

Therefore a better question to ask might be: "What simple and recognizable milestones can be established to assist Government in gauging the success of its policies to maximize the potential of Australia's participation in the digital economy,."

I list a few hereunder:

Item	Requirement	Resulting Announcement
1.	When the last dial-up modem is disconnected in Australia	"Broadband has become ubiquitous in Australia".
2.	When every Australian (over 12) has a cellphone	"Australia country is totally connected".
3.	When 10 Mb per second broadband is available to every cell phone at 1 cent per minute	"Everyone in Australia has affordable broadband internet access".
4.	When the majority (over 50%) of office work, including the business of Government, is carried out by home based teleworkers	"Australia is maximising its potential for productivity and innovation"
5.	When we are able to economically quantify the basis of using broadband to achieve a lowered carbon emission utilisation	"Australia is, as a nation, both eco conscious and economically enhanced.
6.	When every child can utilise the necessary tools of ICT communication and productivity before the third year of high school, and herein I am suggesting a paradigm shift in recommending that every child needs to understand a balance sheet and how to read it. Every child needs to be able to operate and program a spreadsheet and of course, every child needs to learn how to write legibly and coherently. (I think to achieve this – every child at age twelve should be given a public blog to maintain and to submit their school work through. – This blog should stay with them throughout their high school years	The Internet is helping to ensure social equity in the Australian education system..

Q. 3 What categories of Public Sector Information (PSI) are most useful to industry and other stakeholders to enable innovation and promote the digital economy?

Integration with social networks, local council and state PSI - allowing mash-ups of data is a priority.

The introductory summary in the request for comments although factually correct, is in my opinion misleading.

Currently the Government does not make commercially deterministic “useable” data available for free. It currently charges for everything it thinks is worth anything to the querant. What it doesn’t charge for often requires a Bachelor of Science (compsci) degree or better to retrieve.

Further, most Australians don’t even realise that there is PSI that is available as the information is normally surrounded by hard to navigate protective data systems. For this reason, the public is more reliant on information sources from newspapers and blogs.

At an Industry level, the people that need access the most, i.e. SOHO and SME businesses (the backbone of this country’s according to the employment statistics) do not have the time to attend courses to learn how to use complex and often different systems. Nor can they afford to hire a CIO to manage this aspect of what has become an overly regulated commercial environment.

This is possibly the largest barrier to e-commerce trade that Australia has currently.

In Brousseau 2003, it was proposed that because of proprietary data systems, under Government and monopolistic Telecoms control, “In the mid-1990s, France was behind most developed countries in the growth of its information infrastructure”, he concludes that the internet is now playing catch-up but that French business are mainly conducting B2B via EDI, whether on Minitel or the Internet and that France is evolving along an alternative path to the global B2B map leaving its economic ambitions lagging behind countries such as Scandinavia or the USA..

This presents a strong argument against proprietary data and delivery systems.

A centralised AI powered query engine that accessed all PSI from all government departments would overcome this lack of interaction between the Federal PSI and the public.

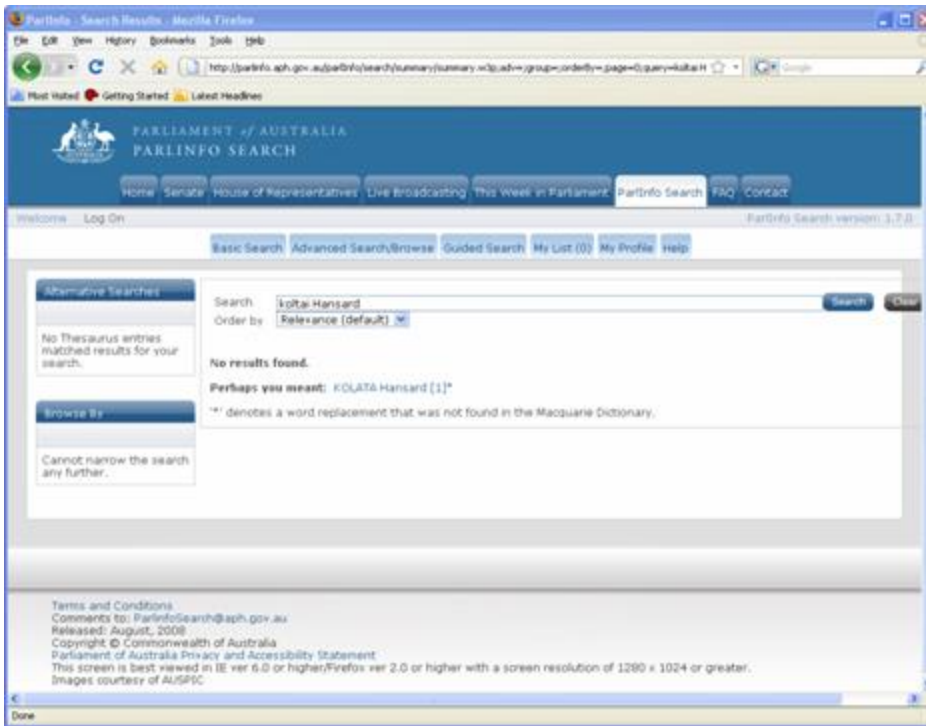
Q 4. What are priority issues that will facilitate the use of PSI?

- User Friendliness
- Trust
- Ease of Access,
- Speed
- Interface Design
- Zero Cost

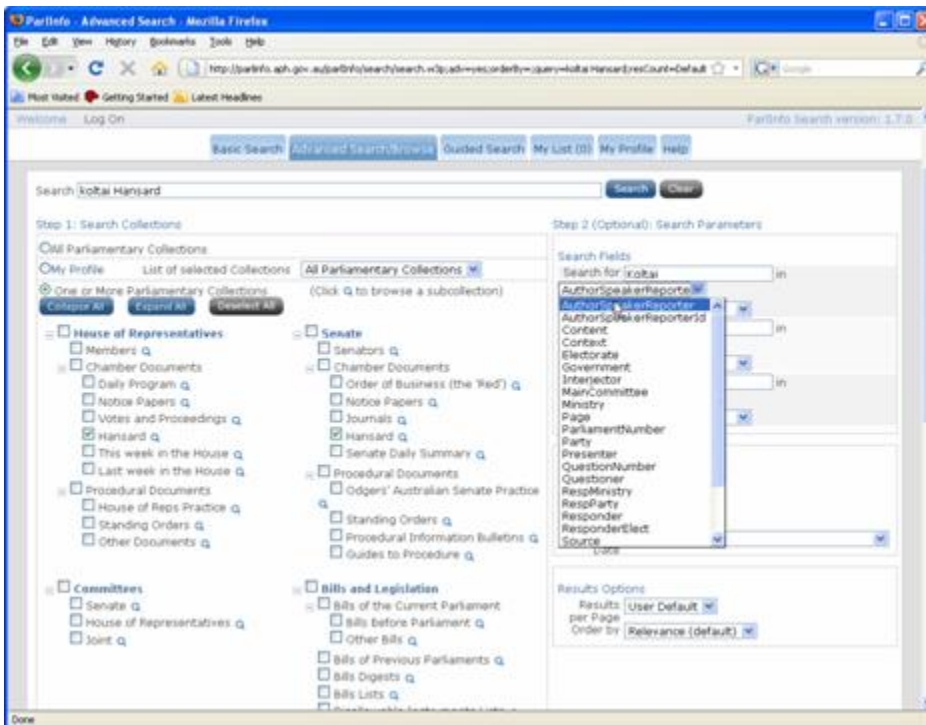
Ease of use is a prerequisite for any successful indexing system.

For example – Part of Foxtel’s popularity comes from it providing users with the ability to timeshift content. This is achieved through the provision of an electronic programming guide (EPG). Even though the content is 90% repeats material, because of the ease of use it is the preferred choice for a large component of the Australian television viewing public. The alternative is an EPG from the internet via your PC that is connected via wires to the TV..

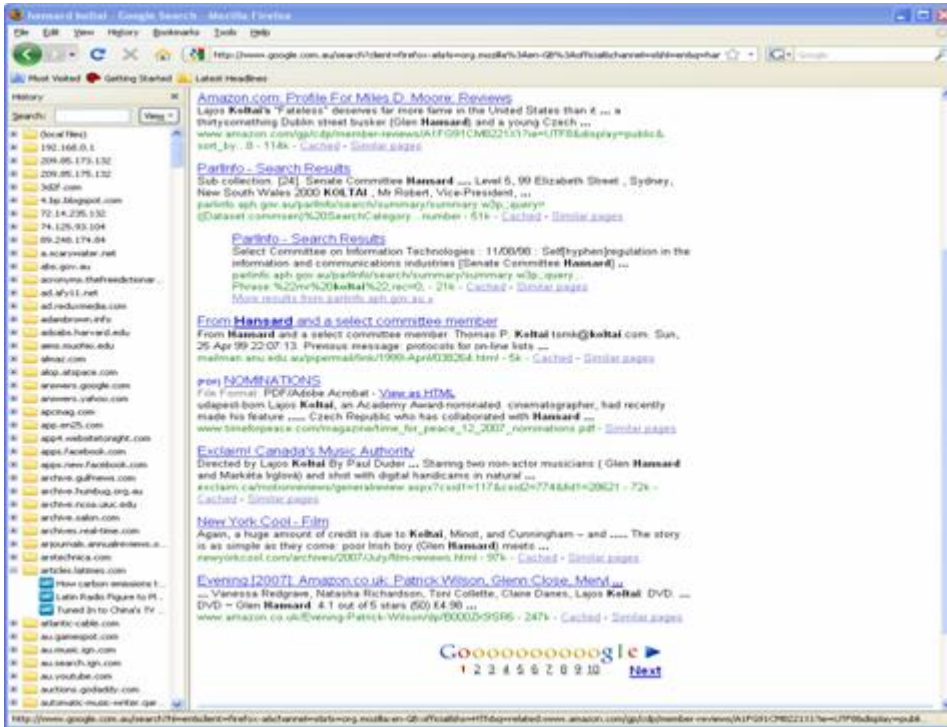
An example of the difficult interface and problems of use are exemplified by the following example: A search of “Koltai Hansard” on the aph.gov.au website results in “**No results found**”.



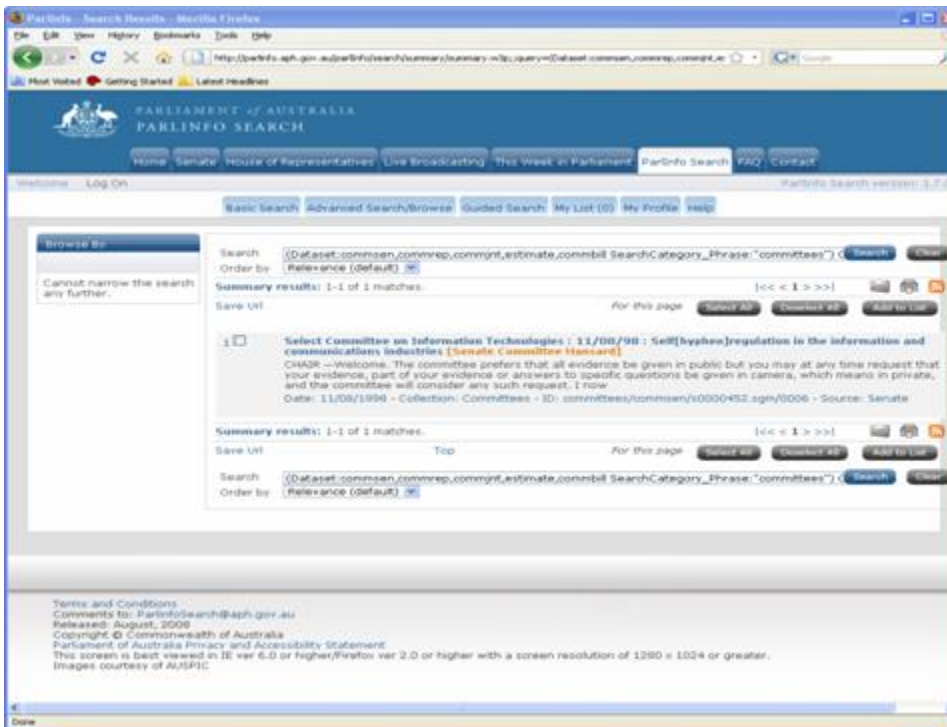
However an advanced search narrowing the field and giving additional specifics is also possible. The following search: "Koltai Hansard Content:Koltai AuthorSpeakerReporter:internet Dataset:hansardr,hansards" also delivers **"No results found"**.



However if you go to Google and use the original search term, “Koltai Hansard” you find several hundred results of which the fifth one on the page (3rd in the graphic hereunder) is what you looked for.



Selecting the Google APH result gives us



Immediately it is obvious what I did wrong in my initial search. I forgot a couple of strings in my advanced search request.

Specifically – "(Dataset:commsen,commrep,commjnt,estimate,commbill SearchCategory_Phrase:"committees") CommitteeName_Phrase:"select committee on information technologies" Responder_Phrase:"mr koltai""

Clearly an external Google search is more effective than an internal one offered inside the website, unless the user has extremely well developed computer skills.

The reality is that unless the facility is usable by Everyman, it has no value.

Q.5 If PSI is made open access, what are the best formats to enable and promote use and reuse?

Preamble:

A federally based dataset is of limited value to the majority of non-statistical analysing Australian citizens. Therefore any initiative has to be integrated within all levels of government – Federal, State, and Local Council in order to ensure that it becomes an accepted part of everyday life.

Additionally the Government's initiative should use GEO based GIS to find and connect commercial content to the querant.

At a minimum this would require to be driven initially by a simplistic Google type interface and the development of an advanced Australian owned AI SQL query interface.

Example: The Benefits of the OzKnowitall Database.

Granny can use to find out how many (retired) people live in her suburb that play bridge."

Mother can use it to find the cheapest meat cuts to fit her budget.

Junior can use it to find out which council tennis courts have the cheapest cost night lights

Dad can use it to find local football matches from all high schools in the area on the forthcoming Saturday so that he can take junior to interest him in playing soccer.

To achieve this the PSI will need to interface with commonly utilised Web 2 applications to be of any long term use and interest.

I personally like the idea of being able to type:

How many people have broadband access in Australia in their homes and getting an answer:

Example:

1. 5,746,329 **Source:** AU Ministry of Communications and e-commerce GDP (e.g.)
2. 6,423,456 **Source:** AU Gov; Australian Bureau of Stats – (Extrapolation of 2006 Census).
3. 16,355,427 **Source:** Unverified Commercial Site (www.internetworldstats.com/stats.htm)

Does this answer your question (Please select 1 for No and 10 for Very Well.)

1 2 3 4 5 6 7 8 9 10

And which answer did you select? 1 2 or 3

I would like to be able to see a set of results without having to open twenty-five references, attempt to extract the figures from protected pdf files, apply my own reliability factor and then mash them into something believable inside a spreadsheet..

Summary Example Only – Non-Comprehensive Table:

	Format Suggestion	Dataset (Examples)	Benefits to the Community	Benefits to Business	Benefits to Government
1.	Community Based	Grocery Items Petrol Price Watch	Comparative Shopping	1. Enables lower priced and targeted community advertising for local businesses 2. Encourages local community purchases by informing availability of.	Accurate statistics on Community interaction (Initially Hit Count)
2.	Local Council Based	Sport Oval Booking Picnic Table Booking Water Temp at the local Pool	Easier use of local facilities building community trust	Understanding Council issues without attending meetings	Council Oversight (Response from users of service)
3.	State Based	Roadworks Advisory Timetable Rail and Bus Timetables	Efficiency Gains in Travel Scheduling	Less Delivery Delays	Enhanced use of Public Transport and smoother traffic flows
4.	Federal Based	Australian Made GDP numbers	Clearly Identified Aussie Made Products	Automatic Representation for all Australian Made Industries with no fees payable ^{xi}	Promotion of Aussie made without Tariff Restrictions

Example Question:

Querant: Travelling from home^{xii} to destination “x”. Please advise best routing and why.

Example Answer:

The number 41 Bus leaves the Terminus at 20 minute intervals and will arrive at the number 32 bustop at 5 minutes past, 25 minutes past and a quarter to the hour.

Or you can drive via cross street turning right onto long street to avoid the roadworks commencing at 103 short street on the 5th of August.

If you would like to bicycle, it is a 3.8 kilometre journey and will earn you 48 cents in carbon offset credits.

There are no other methods available in this database to achieve you destination, unless you would like to walk. In which case, your carbon offset credit would be \$1.07.

Thank-you for using OZKnowitall and have a nice day.

Q. 6 If PSI is made open access, what licensing terms would best facilitate and promote its use and reuse?

Creative commons license with the maximum access to the user whilst at the same time ensuring that the copyright is retained by the government.

Q. 7 Should licensing terms distinguish between commercial uses and non-commercial uses and reuses?

The value of any dataset for any use, is in the presentation of the data.

If raw data is presented from an SQL query implemented by a Google type AI front-end, I consider the data should be free.

If value is added to the data via a human interpreter who is involved in manipulating the queries to provide a report with charts, graphs specific to a request, or other additional interpretation of the data, then I consider that prevailing market rates for a consultancy service are justified.

The focus on licensing and cost issues should be the comparison of cost to the country of the short term gain of minimal revenue from Government licensing activities.

The Government already knows its average revenue from charging for PSI data. Therefore we need to look at the other side of the coin.

In other words, what benefits could Australian PSI querants add to the economy by way of additional jobs, increased taxes and general consumer satisfaction resulting from enhanced lifestyle levels?

The answer requires dedicated research; however I give some practical examples here-under.

In a paper [to the United Nations Regional Seminar on Competition Law And Policy for Asia-Pacific Parallel Imports & Intellectual Property Restraints entitled The Australian Competition & Consumer Commission's Perspective - 14 April 2000 - India and presented by Mr Ross Jones - Commissioner - Australian Competition & Consumer Commission.] Mr Jones said,

Recently, there have been renewed debates about what kinds of incentives are necessary to encourage innovation. Such debates usually revolve around one or two issues:

- The first is whether greater proprietary rewards to the innovator (i.e. appropriability) or increased competition work better to spur innovation efforts to the level that is "best" for society.
- The second is whether society benefits most if it rewards initial innovation through broad intellectual property protection, **or if it fosters successive innovations** (incremental or "leap-frog") **by requiring access to the intellectual property of the initial innovator."**

Mr. Ross whilst referring to the concern of "Grey Marketing" was nevertheless establishing a baseline Government attitude to Intellectual Property – and that includes Government datasets..

Licensing – obviously for profit motive – has never been a driver of the economy. It just pays some bills now, but prevents small business from participating on a level playing field thereby discouraging competition.

Practical Examples

Example 1. Credit Checks.

A detailed extract from a search of the ASIC database costs \$55.00 from D&B [ASIC Agent fees] that for a small business means it will not normally carry out that most basic of checks to ensure good credit worthiness. This fee system, whilst a windfall for the Federal Government has meant that thousands of small business take credit applications on trust and as a result hit the wall.

Example 2. Marketing Initiatives

A small business wanting to carry out statistical analysis to assess the viability of advertising expenditure e.g.: a printer consumable supplier in 2008 who had sourced a new cheaper form of toner and was carrying out local remanufacturing of printer cartridges, was desirous of finding out how many TAB Hotel licensees there were in NSW by postcode. (\$198.00 to the Liquor Licensing Commission to receive a spreadsheet. The PDF version – with the same data was available for \$68.00

In other words, the user/consumer/small business was heavily penalised for obtaining the data in a usable format.

Whilst this may be a revenue earner for the Liquor Licensing Commission, it resulted in the business owner buying the cheaper version and then spending 12 hours to convert the data into a spreadsheet. A 12 hour loss of productivity that based on the businesses turnover actually resulted in her paying \$1100.00 for the data.

That's a \$970.00 loss in economic terms regardless of which accounting standard is used.

Penalising the customer for purchasing the “useable” dataset is in my opinion a predatory act and not one which is designed to enthuse the population into being more productive.

If we calculate the same loss across all small business in Australia enduring a similar situation once per year, then we need to deduct \$2,255,000,000 from the GDP.

On a taxation basis, based on a 33% tax rate and assuming no deductions, \$744,150,000 could have been earned by the Government for those lost earning hours, instead of the report revenue increase by doing less work (CSV file instead of a PDF file) of a mere \$266,500,000.

Therefore this particular initiative cost the Government \$477,650,000.

Example 3. Marketing Initiatives by Demographic Data

In 2006, a small boutique brewery was desirous of finding out how many people lived in which postcodes by age.

Hereinafter is the quote for the ABS collected data with “n” applied as growth determinate from the previous census.

(Client Request # CR-2 0060717-151550-pm)

1. Detailed Description: Estimated Resident Population at 30 June 2005 by 5 Year Age Groups for All Postal Areas in New South Wales and Australian Capital Territory
Consultancy Specifications

The quote provided below is based on undertaking the consultancy as specified in this document. The consultant may revise the quote if specifications are changed subsequent to commencing the consultancy.

Title	Quantity	Cost
Estimated Resident Population		
Reference Period: 2005		
Format: Excel2003		
Geographic Level: Postal Area		
Medium: Electronic -- e-mail		
1		\$440.00
2. Labour	1	\$82.00
GST Inclusive Total:		\$522.00

If we were to analyse this quote, understanding that the task for a programmer writing the SQL report query would take less than sixty seconds we conclude that the real cost would be in the order of \$1.00-\$2.00 – not the 440.00 quoted.

As for labour at \$82.00, please note the data was requested in a CSV format with no formatting thus not requiring any labour.

The \$52.20 GST adds a further impost on a dataset that had already been paid for by the taxpayers of Australia which now is constrained by a wall of consultants and a level of service that is totally unnecessary except to facilitate the collection of fees.

The Boutique brewery was not large enough (turnover 25k per month) to pay for such a report, therefore the advertising campaign didn't occur, which ultimately led to a lack of GNP growth for Australia by the relevant brewery.

A better licensing option would be free access to the data on the basis of project reporting by the consumer.

i.e.: Each request to be issued an E-commerce project number.

The consumer to write a 25 word definition of the reason for his request and to provide an outcome date.

All requests to be logged into the Project file.

Example:

PSI: Welcome, please enter Query or Project Number.....

Querant: How many Lawyers are there in New South Wales ?

PSI: Please identify your request Category:

Commercial: 1 Marketing Research 2 Production Research 3 White Paper

Educational: 4 School Project 5 Thesis 6 Research Paper

Querant: 4

PSI: When is the School Project to be completed?

Querant: by the weekend

PSI: For what Grade is the project for?

Querant: 8

PSI: When your project is marked, please login and tell us what mark you received.

Your project number is ABS1604.9976

Number of Lawyers in NSW according to the New South Wales Law Society is 35,999

After the weekend.....

Querant: ABS1604.9976
PSI: Additional Query or Result ?
Querant: Result
PSI: Please Enter Result
Querant: B+
PSI: Thankyou.

Benefits to Consumer

Received assistance from the PSI in a helpful, courteous manner.
Will most likely repeat the experience again.

Benefits to Industry.

Industry can see that year 8 students are considering becoming lawyers.

Benefits to Government

Non Trivial feedback on consumer demographics not currently available elsewhere.
In this manner, Government is engaging with its constituents at the deepest levels, conscious planning; enabling Government to be more aware of the populations interests and potential needs; and is developing trust

The benefit of the PSI providing data to both individuals or enterprises is for Australian businesses to become more competitive. By having access to data of every kind business should be able to make more considered decisions enabling greater productivity to occur with less waste.

Since business contributes to the economy both by paying taxes on profit, by utilization of working capital, and by employment, it is logical that business should be encouraged to access and use data that is owned by the government. The best way to ensure that this takes place is to make that access to the data free for all querants, with the sole proviso being that the user of the data credits PSI when the data is published in any way.

The metrics that show that this strategy is successful should be the growth of the public's knowledge of PSI as the source of valid and credible data on every aspect of the Australian economy measured by the number of times that the data is mentioned in traditional newspapers, on websites and in blogs and in academic or business publications.

By enabling the information to be used only on the basis that the user registers for access to the data, metrics showing growth of use will easily be obtained. The growth of use and the increase in usability should provide an early warning system that will show areas of key interest that will enable prediction of the market segments that are likely to experience growth over time and the areas of information where there is a lack of interest which will show where there is a potential for sluggish economic performance in the years ahead.

Therefore my response is – abolish all fees for all Federal and State PSI at a minimum for all business under 500 employees – determinable from the previous years PAYE filings.

Q. 8 Are there other examples of innovative, online uses of PSI?

A number of national governments have their datasets downloadable in CSV format, with no reporting costs. Taking this first step along with the provision of an open API will enable high value adding of the data through Web 2.0 applications which in turn enables the value adding to the data to be outsourced to industry and the public.

Additionally, some administrations choose to show the “Real GDP” figures consisting \ of goods manufactured using only locally sourced materials and local labour.

2. The US Bureau of Economic Analysis. – “Real GDP”^{xiii}

Regional Economic Accounts:

Gross Domestic Product (GDP) by State

http://www.bea.gov/newsreleases/regional/gdp_state/gsp_highlights.pdf

Gross Domestic Product (GDP) by Metropolitan Area

http://www.bea.gov/newsreleases/regional/gdp_metro/2008/gdpm_highlights_0908.htm

State Personal Income (SPI)

http://www.bea.gov/newsreleases/regional/spi/spi_highlights.pdf

3. The Hungarian Central Statistical Office (English Version)

Access to the Dissemination Database^{xiv} is free. HCSO publishes datasets of comparable time series in the database. Access is available through user-definable queries. The queries may include statistical indices such as population, along the selected dimensions such as Regions / Counties. The resulting table of the query may be used for further modifications and editing, including the location of dimensions and details. The table may be downloaded, and/or used for graphic representation.

3. Repository of all Industry Canada content.^{xv}

Q.9 Is there any additional economic modelling or other evidence to show the benefit to Australia from open access of PSI?

The OECD, and several research think-tanks have developed economic models based on open Government data-access and all have concluded that the economy is better served in the long term when data integral to the building of that economy is available for free or almost free.

In a report commissioned jointly by the UK Department for Business, Enterprise and Regulatory Reform (BERR) and HM Treasury in July 2007 Professor David Newbery, Faculty of Economics Cambridge University, Professor Lionel Bently CIPIL, Faculty of Law Cambridge University, Rufus Pollock Mead Fellow in Economics Emmanuel College, Cambridge University published, “Models of Public Sector Information Provision via Trading Funds” on 26th of February, 2008 and available from <http://www.tinyurl.com/2xs4qj> (Retrieved 12 January, 2009).

“The UK Government attaches importance to the distributional consequences of its actions, many of which are justified by the beneficial impact they have on distributional outcomes. Indeed, any Government that was unconcerned with equity would choose taxes that were least distortionary, and these would be on in elastically demanded goods and services, i.e. on necessities; and in extreme cases by lump sum taxes. Once it is recognised that equity is of concern, then the social values of equal transfers to those at different standards of living are no longer equal - and one cannot treat \$1 of consumption as equally valuable no matter who receives it.”

If the Australian Government is serious about providing an economically encouraging environment it should revise its philosophy toward licensing fees by ensuring that all data is as freely available as possible and as easy to access as possible. At a time when there are threats to the global economy and to free trade, it is essential that there are as few impediments as possible to continuing confidence from business in investing working capital in growth. This will be significantly aided by a free access philosophy.

SECTION 2. Digital confidence

Q.10 What more can industry and other stakeholders do to address concerns about consumer privacy and online safety?

The safety of the citizens including their physical, psychological and economic well being is the primary purpose of Government.

In the minds of most consumers, consumer Privacy and Online Safety are separate and distinct topics

Identity Fraud represents one online privacy and safety issue. "Big Brother" consumer concerns are quite a separate issue.

Many consumers are deeply concerned that Government involvement in IT is both another excuse to track their activities through obtaining "private data". They are equally concerned that the Chinese walls to and from government departments may be easily breached, enabling such things as health or taxation information to be accessed by companies desirous of knowing more about people.

Companies that feel strongly about this issue should join the Global Network Initiative - Protecting and Advancing Freedom of Expression and Privacy in Information and Communications Technologies - <http://www.globalnetworkinitiative.org/principles/index.php>

It is my opinion that once the Government has decided to tackle a subject as a Federal issue it becomes more difficult for the citizenry to have useful input.

For instance, with an Internet filter in place, the majority of Australian citizens will surely consider that they are protected from Internet fraud such as phishing.

If just once the filter fails to prevent access to child pornography, bestiality, perpetration of an internet banking fraud, or a dirty old man chatting up a 13 year old in a yahoo chat room, then the current government's credibility will be left seriously wanting in the eyes of the Australian voting public. This will damage any potential "trust" currently developing between Government and constituents.

I am tempted to believe that the filter is more about the pressure brought to bear on the Government by copyright industry associations such as the ARIA, MIPI and AFACTS than about protecting children from pedophiles. After all the Rudd Government has categorically stated that it will stop P2P file sharing.

After implementation, perhaps a valid defence for anyone in Australia who is indicted for a copyright violation that such an event must be impossible; "I couldn't have been downloading copyrighted Porn via P2P. The filter prevents me from doing that. Ask Senator Conroy".

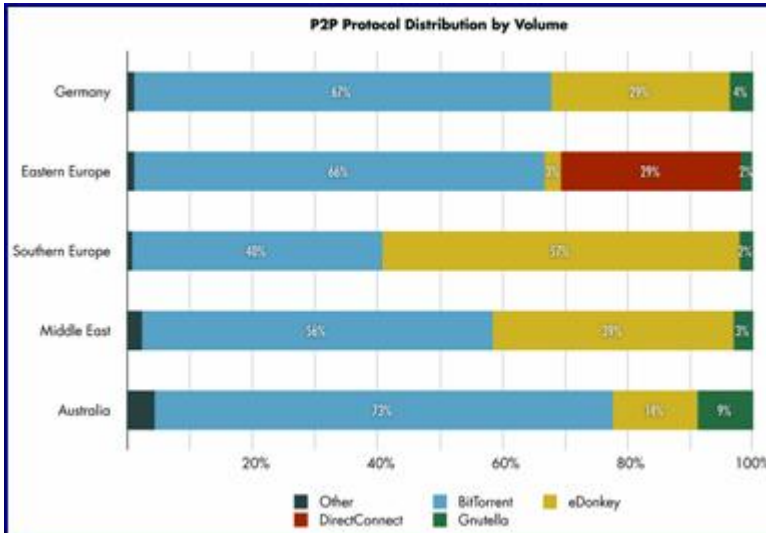
Unfortunately, I consider that such an outcome would blemish Australia's long term potential success of becoming an economically successful networked nation.

Categorically, the filter will not work. Any grey haired router programming-capable individual who is not on a consultancy to a big iron company (e.g.: Cisco) will no doubt confirm to the Government that unless you control the DNS tables (Root servers A-K), filtering is impossible to achieve. With control of the root-servers, you would still need an army of "human" interpreters to

check every URL posted (Now over 180 million per day and growing exponentially at 3.16e [compound per annum]).

This does not include the questionable content “mash-up” sites that have active scripts trolling the net constantly.

With TCP-V6, that problem is extended to local networks – moving interception down to the ISP level.



The P2P community has, with the assistance of the Recording and Motion Picture industry, shown a determination to successfully respond to each of the industry’s attempts to shut down their operations.

Lugundum servers, the most popular connection methodology for new P2P servers, operate on dynamic static IP’s that are pulled from a pool of available IP numbers in four continents. (At this time – no Australian IP numbers are thus utilised).

In layman’s speech they change their IP number every 21 minutes. The pool is equal to several “B” (13,1072 IP’s) classes and utilises unused consumer DSL IP numbers. This can not be filtered, at least not on an IP number basis.

Further, the activities of anti-piracy companies such as Media Defender, Bay TSP and others have motivated P2P developers to provide tools that encrypt data streams and masquerade it as data using Port 80.

Bit Torrent traffic is now almost 75% encrypted. The results of the Australian Kazaa decision have alerted Australian Internet users to the concomitant risk of P2P activity. This is reflected in the 2007 Ipoque numbers that show Australia as the most prolific user of BitTorrent among their five areas of statistical data collection.

At the ISP level, approximately 25% of current P2P traffic is encrypted and, as a result, looks like normal Web traffic. As a result it will not be detected by filters.

The efforts to move P2P to undetectable status has been assisted and promulgated by the academic community, and leading software developers at Harvard University and

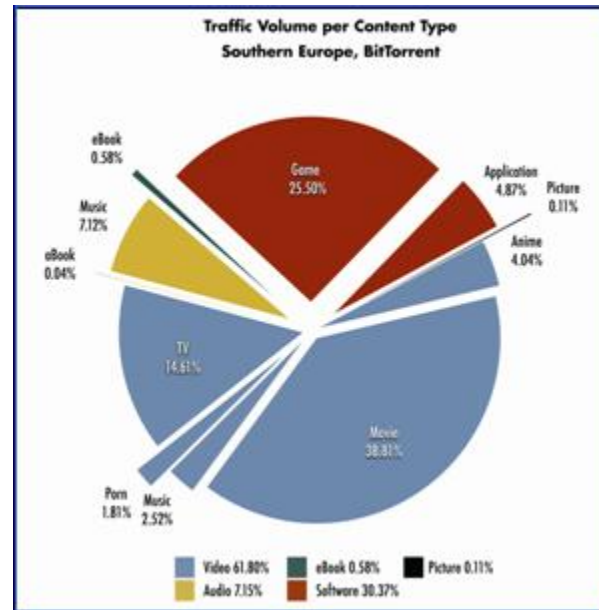


Figure 1 Decreasing interest in Music P2P

Microsoft who see the ability to accelerate the distribution of information while moving the cost onto the consumer of the information as a means to increase productivity, and therefore a beneficial outcome for both enterprise and community.

Attempts at restriction will only slow the opportunities for the rest of the country and result in filtering innocent sites thereby having a deleterious effect, long term, on e-commerce.

ISP's could mandate that all consumers must have an active anti-virus agent operating at all times that users are connected to the net.

Q.11 What more can be done to increase trust and confidence in online transactions?

Ecommerce has been boosted by consumer frauds Protection schemes like the Paypal \$20,000 buyers guarantee. When it was introduced, it bolstered EBay take-up, however it has unfortunately had some hiccups since^{xvi} regarding "non-credit-card-chargeback's"

An Australian Government insurance exercise to a limit of \$5,000 as a 1% levy option on all Australian originated and completed transactions with both buyer and seller within Australia would help increase confidence.

The promotion of insurance against fraud – (e.g. Paypal \$20,000 Guarantee) would ensure that people become aware of Fraud insurance.

A broad-spectrum advertising campaign in conjunction with the Federal police and the banks to announce the new secure banking transfer policies would ensure that no phishing fraud scams or key logger malware will empty any more Australian bank accounts even if the users are not computer literate.

Finally, we should stop giving credence to the concept that piracy includes file-sharing for personal use without any personal gain. The more publicity that file sharing receives, the higher the take up by new adoptees.

The plain fact of the matter is that everyone who manages or owns a computer, will at some time copy something onto a cd-rom or DVD that is governed by copyright.

Do we then lock up everyone in Australia for being a pirate?

Confusing messages sent by the government and recent rulings by our courts on this issue need clarification and de-obfuscation.

I believe that in this regard it would be beneficial to the country and the economy if Senator Conroy announced that:

"Piracy is the act of copying a Disc or CD-Rom and selling it for profit. The government will not tolerate this activity and the Australian Government is working with the Federal Police to stamp this out. Copying of Cd's, and DVD's for personal consumption is not piracy."

Using P2P software to distribute content is not piracy and therefore not a crime."

If the Government wants trust from its consumers, then this action is critical for success.

Whilst there may be initial negativity to this from WIPO, there is greater potential for domestic benefit from such an announcement than there is risk in loss.

The benefit to the minister is that this announcement will make him very popular. While the perception may be that such a move will be popular among the youth of the country, research that we have conducted recently indicates that P2P activity is taking place across a very wide demographic range.

More important is that such an announcement will ensure that a generation of Australians will not end up being turned into criminals for even less than the first convict settlers did to cause transportation. Therefore it will increase the level of trust that most Australians have for their Government. I would argue that this would be a positive outcome.

The benefit to the economy will be that the content owners will need to focus on delivering digital content in an equitable manner. This will be positive for all parts of the ICT industry, and will ensure that the content industries seek solutions in new business models, rather than by selective use of the law against a public that is unable to afford equal standing in the eyes of the law.

The benefit to consumers is that the Australian taxpayer will no longer have to fund expensive policing activities that are largely beneficial to businesses that are owned outside of Australia and as a result do not contribute to the GNP of the nation.

The benefit to the global economy is that visionary leadership of this kind will help herald a new age of trust in a digital world and will alleviate some of the problems in the emerging economies, of China, India, the middle East and the African sub-continent.

Q.12 What is needed to address the SME concerns identified above?

Require all Australian online transactions to be confirmed by Pin number via mobile phone.

This would result in a zero volume loss to internet bank-account and pay-pal fraud within two years.

Insist on Bluetooth being present on all Australian PC's within 12 months and change the Pin number from 4 digits to 16 digits 1024-byte encrypted within 24 months.

As evidenced in low GDP countries, Mobile phones are the e-commerce device of natural technology selection based on their affordability and portability.

However, restrictions should be placed on users being able to transfer money on mobile phone only based bank access – i.e.: in the case of stolen mobile phones – or kidnap/ransom mugging scenario. Online banking for the moment should require two disparate network devices to complete a transaction. In this manner, with GPS location information available to the bank, a confirmation can be made that the IP number of the computer is in the approximate vicinity of the mobile phone.

Q.13 Are there possible barriers preventing a strong online retail experience in Australia?

Techno Babble

When colour television was first introduced in Australia, on the occasion of the first broadcast, hundreds of viewers called the station complaining that their televisions were still showing the images in black & white.

The reality is that for some, technology arrives a little slower than for others. Confusing and intimidating techno babble from industry, web designers and ISP's can be overcome but the learning adoption curve appears to be generational (in the order of 10-12 years).

GST.

GST is based on the service component offered.

There is little "service" component in an online e-commerce transaction. The burden of GST collection and BAS submissions is an unnecessary burden on small business. Every Government reporting and regulatory burden that can be removed from e-commerce should be done so as to enhance its attractiveness to current brick and mortar businesses that have not yet "seen the light"

To encourage these companies, a mandatory 3% levy could be introduced based on the gross turnover of a company. The levy to be payable if each company does not spend three percent of its annual gross revenue on promoting and/or selling via the Internet.

At the same time, a discount in the GST on all web based transactions to 7% would balance the books and add a carrot to the adoption levy stick.

Q.13.a What can industry and other stakeholders do to address these?

There is a need for industry wide template pricing and support policy for Web start-up clients

It would be a help if start-up packages from all vendors were the same price up to a certain level of complexity and support. This would encourage trust and take-up.

For example – an E-commerce site consisting of four pages, with a maximum of ten products, hosted for twelve months, with a shopping cart, not exceeding 50 transactions per month equals could have a universal base price of \$350.00.

This option has the potential to standardise and demystify what clients receive. Additional products can be developed by the AIA through consultation with its members.

Q.14 What is the experience of business-to-business e-commerce in Australian supply chains?

In the eighties it was considered normal for the wives to nurture the family and then start a dress shop once the children have flown the coop. These days, the nurturing seems to extend to 25 year old offspring or beyond, so my response is, "thank-god for EBay".

SOHO B2B is now predominantly EBay based. This has however resulted in the commencement of several thousand home (wife-run) SOHO businesses that wouldn't exist unless EBay had been built.

The future of the country is always in the hands of our children.

If I “pay” my son, \$10.00 in pocket money, he doesn’t understand why 10% disappears in Purchasing Power because the Government wants its GST.

1. GST, should be abolished for any one with a student ID.
The additional 15% Purchasing Power will add an estimated 21 billion dollars per annum to Australia’s GDP.
2. Additionally, removing GST from all Australian made goods purchased via an e-commerce transaction is a stimulant and does not appear as a tariff restriction.

Q.14a Are companies (large and small) saving money because they are now making electronic transactions?

Yes. Both at an administrative level and consumer supply and satisfaction level.

An example is in the Printer Cartridge industry. The cost of Printer cartridges from name manufacturers continues to be in the order of 11-16 cents per printed colour page with 4% coverage.

The same products obtained through EBAY result in a price reduction to 4-7 cents per printed colour page.

Q.14b What are the barriers to take-up?

- Costs of Bandwidth – the more hits a site receives - the more expensive the hosting – regardless of sales.
- Lack of Professionalism in Web industry
- Regulatory overhead
- Trust in Supplier.
- Trust in Bank.
- Trust in Courier and Post Office Delivery personnel.

I no longer consider technical competency is a major impediment to take-up. Everyone now knows a mate of a mate that can throw some web pages together for a few dollars.

Q.14c Are international companies benefiting from e-commerce transactions with consumers and with other businesses?

The early adopters, Yahoo, Google, EBay dominate a sizeable slice of the global ecommerce space.

Latecomers like YouTube through its parent, Google have discovered advertising delivered as entertaining skits obtains higher hits as action events; resulting in positively impacted sales results.

Possibly – for this paper, the question should be – are SOHO and SME companies finding that their exposure increases sales of their products to International markets as a result of their Web based E-commerce initiatives.

Q.15 What evidence shows the possible barriers preventing greater online content offerings?

No Public comment at this time.

Q.15a What can be done to address these?

The Government can legislate a 3% E-Commerce levy.

SECTION 3. Developing Australia's knowledge and skills base

Setting the Scene.

The world has passed 3 billion mobile subscribers.

The cost of mobile phones continues to fall. Therefore, with higher adoption numbers, mobile is the target for ubiquitous E-Commerce. B2P B2B and will operate on a new "eighth layer, the P2PNet. (e.g.:TVU/Miro)

As a result of the ongoing miniaturization of Computer, processors, e.g. the Atom CPU, convergence between mobile phone, pocket PC and laptop is imminent.

The device of the future will be a pocket device that can transfer content via USB3 speed Bluetooth wireless connections enabling large format screen display of content on household Digital LCD/Plasma Screens.

Traditional appointment-to-view television is almost non existent in advanced technology competent homes.

Time shifting, P2P download and peer sharing via a combination of mobile devices, internet connections and multi-media server software (e.g. Twonky-Media, TVersity) are today being used by over 56%³ of Australia's population on a daily basis.

Q.16 What can industry and other stakeholders do to assist the Government's existing efforts to develop the digital and media literacy skills of Australians?

Last year Steven Schwartz presented a speech^{xvii} to the 6th Annual Higher Education Summit in Sydney.

The speech was so good, that I would like to quote selected highlights:

The government has called for an "education revolution" aimed at making the Australian workforce "the most skilled in the world".

To achieve this, universities will have to supply business and government with skilled graduates.

There is only one problem.

The skills required for employment today are not necessarily those that will be needed in the future.

³ Perceptic.com Company Research

I used to be a Dean of Medicine, and I can assure you that much of what we taught our students was obsolete shortly after they graduated.
(To be perfectly truthful, some of what we taught them was obsolete even *before* they graduated.)

Q.17 Would specific offline measures to inform business and local industry groups about online offerings assist in developing e-business?

Yes.

Bus, Train, and all traditional Media advertising – stating quite simply:

“Tell the World about your business today. Call 1-800 FREEWEB”

1-800 FREEWEB would be a Government sponsored independent body designed to offer templates, lists of hosting suppliers, free training and ultimately a free government sponsored and set-up web page on a government host.ing service.

The free component would last only six months and then users would be required to “move” their web-sites to a commercial hosting service.

During that time, each business would have their “Web worker” [geek social worker] to advise, review and assist in each step of getting the individuals web page live and functioning and allaying concerns, fears and doubts..

Q.18 How can industry assist in promoting the attractiveness of ICT related degrees?

Unfortunately, in addition to Australia’s brain drain to the US and Europe there is an added academic overhead of a self-funding prioritization obligation imposed on Universities requiring our local campuses to select international moneyed students ahead of Australia’s own possibly marginal but still enthusiastic candidates.

Without some urgently needed reform to address the lack of spaces at the more prestigious establishments with most probably the leading post graduate research projects, there is little motivation for industry to expend its energy and working capital on promoting what in most instances will turn out to be a failure for admission.

In the United States, there is a culture of headhunting at college/university level so that industry can identify and employ the best of the best before a degree is complete.

Whilst there are some limited elements of that today, they do not resemble the full day workshop approach that major US companies engage in to lobby students to pick “this company” as the target post degree placement option.

This is something that has become part of the educational culture of the American way of life. There are very few students that do not have a job offer prior to graduation. This culture needs to be adopted in Australia and industry should be forced to participate.

Other than this I am not convinced that industry can do more in this regard than it is already doing – i.e.: offering increased pay rates for degree qualified individuals.

Unfortunately, a great many people are aware that Bill Gates never completed his degree.

Perhaps a sponsored advert from Bill Gates saying he wished he did complete his degree would see a massive ramp up in tertiary qualification applicants. In lieu of Bill Gates, perhaps Rupert Murdoch would be willing to step forward to explain why he picks companies that have a high levels of employees with degrees for acquisition, and why he pays them 10% more than the asking price.

Failing both of these preferred options, a patriotic advertising campaign explaining to people in 30 seconds that the appropriate utilisation of computers increase their standards of living would help, possibly endorsed by CEO's of major Australian Corporations.

Alternatively a new innovation fund could be set up and provided through the existing venture capital infrastructure in Australia that favours investment in businesses whose principle staff have degrees in ICT and/or which have innovating intellectual property that has been generated in Australian tertiary institutions.

Example:

Australia needs 100,000 qualified IT people by the year 2012 to secure our children's future. Every Australian needs to address this now before we are left behind by the rest of the world. Ring the information hotline 1-800-Hotline to find out how you can make a difference.

Q.19 What core set of digital economy skills can be incorporated into non ICT-related degrees?

It should be mandatory that every degree or diploma course includes within it units that relate to core computer functionality.

These would include various levels of word processing, spreadsheets, power point and other tools that are fundamental to business.

The units of learning should be able to be achieved at High School, TAFE or university.

There should be a multi-disciplinarian approach to some courses that ensures that there is a higher level of understanding of some aspects of ICT for some degrees.

For instance lawyers should have to achieve a level of understanding of network theory and practice as part of their degree course.

Q.20 Will industry work with Government through the Productivity Places Program and Innovation and Business Skills Australia to improve the curriculum of current training courses?

No response offered.

Q.21 How can we better match supply and demand for skilled ICT workers?

By implementing a categorisation classification system of ICT workers with appropriate pay scales to prevent the current brain drain to the UK, the US and Europe.

By introducing a special tax break for ICT workers that enables them to pay tax at a different threshold to other workers, so as to allow them to earn more before being negatively impacted by tax thresholds.

Q.22 What measures did industry find successful in boosting staff, ICT and e-business skills?

By giving weekly progress reports to all staff – personally - every Friday, I was, in the early days of the Internet able to instill a work ethic culture that ultimately required us to implement rules that required employees to depart their workstations at 10 pm – 7 days a week.

They understood the vision and wanted to be part of it.

I also prohibited smoking breaks unless they were in groups, scheduled and timed – requiring every person around an ashtray (outside Norwich house) to be part of different department – this encouraged cross fertilization of departmental knowledge and made smoke breaks profitable to the company as impromptu training camps.

SECTION 4. Ensuring Australia's regulatory framework enables the digital economy

Q.23 Should the existing copyright safe harbour scheme for carriage service providers be broadened?

Setting the Scene.

The safe harbour scheme provides **legal incentives** for 'carriage service providers' to **co-operate with copyright owners to deter** unauthorised infringement of copyright material. The scheme applies to four categories of offending online activity. Broadly, these include providing facilities or services for transmitting, caching, storing at the direction of the user, and referring users to an online location using hyperlinks.

If a carriage service provider complies with the conditions of the scheme, the remedies that can be awarded against it for the infringing activities of its customers are limited (i.e. no monetary damages and a restriction on court orders). The conditions to be satisfied differ for each online activity. For some, there is a condition that the carriage service provider takedown infringing material.

The current Australian version of the Safe Harbour legislation requires ISP's to terminate the accounts of repeat offenders when notified by a duly authorised representative of the copyright owner.

Whilst the notion of stopping a copyright infringement is reasonable, one has to look first at whether a copyright has in fact been infringed, and second at the economic impact of the concept.

People have been sharing content with each other ever since books were first printed, through loaning them to each other. Prior to the invention of the digital recorder and the CD, people were recording radio shows and LP's onto cassettes and then copying favourite pieces of music from one cassette to another to share with a friend.

While it is important that there is a strong copyright law, it is just as important to ensure that it is used to pursue real criminals and not used to criminalize real people.

The economic impact of unconstrained legal actions by content companies is a key issue.

According to the content companies they have been negatively impacted by file sharing. However, the statistics that are now coming to light and which will be the subject of a report to be released by this author tell a different story.

Briefly, the data that is now coming to hand shows that P2P file sharing tends to help propagate information about content that leads to that content being purchased by consumers. Declining top line revenue numbers belie the fact that gross margins have increased through legitimate digital distribution by companies such as iTunes. The very public argument that negatively attacks P2P obfuscates the true nature of the way that content companies' business models operate and

enables shrinkage numbers and costs to be misconstrued thus ensuring that there is the ability to point elsewhere when bemoaning failure to develop strong individual pieces of content.

In addition to this there is the matter of ISP economics

According to all available information between 21% and 32% of all internet users in Australia engage in file sharing.

In other words, the Safe Harbour scheme as it currently stands requires ISPs, to initially police and then disconnect up to 32% (and growing) of their income stream with no compensation payable by the copyright owners for having to do so.

If service providers are expected to terminate approximately 32% of their user base of the accounts of repeat offenders as required under section s16AH(1) item 1 condition 1 to satisfy the Australian Governments desire to retain cordial relations with the United States – then a compensation arrangement needs to be reached for:

1. The increasing workload on ISP's for the policing of users' online habits through issuing infringement notices, examining log files to identify the user, contacting the user and issuing a warning and having to notify the issuer of the infringement notice that the ISP/CSP⁴ has complied; and;
2. If the user continues his activities, a compensation for the lost revenues of the user for the balance of the user's contract period.

The cost to the ISP for item 1, is likely to be the cost of one employee for 20-30 minutes per incident report.

The cost to the ISP for item 2, is likely to be between several hundred to potentially thousands of dollars.

The numbers.

The ABS collects stats on Australia's 35 Largest ISP's. Each of these ISP's has in excess of 10,000 users.

Let us for a moment examine the number of infringement notices that may arrive in a month at an ISP with 10,000 users of whom 3,000 are sharing files.

If the ISP receives one infringement notice for every-one of those 3000 users in the first month, then it requires ten full time employees working on nothing else but infringement notices for the entire month – just to ensure that it is complying with the Act and to qualify it for exemption from prosecution from the relevant copyright industry policing authority.

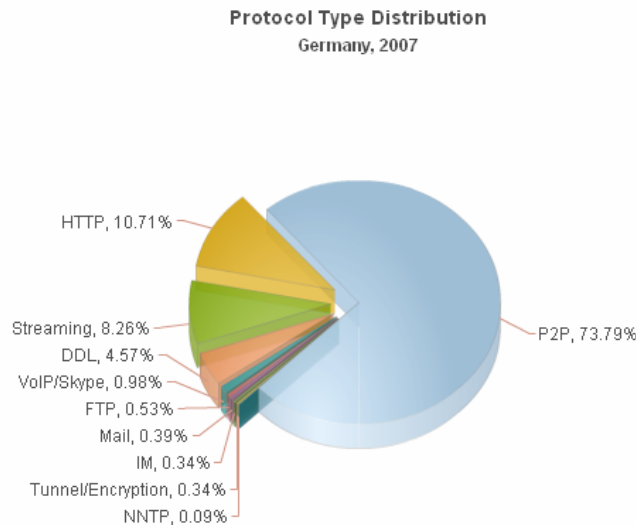
There is no warranty on the part of the content industry that their information is accurate – in fact there is definitive evidence to the contrary.

Further there is no offer of restitution if the ISP is subsequently sued for damage to business or other perceived or real damage because of a user's disconnection. Nor is there any relief offered by existing Australian case law or legislation.

If the offenders repeat their activity – and statistics suggest that this would be the case; the ISP is then required to terminate these same users in month two, and the ISP suddenly losses 150K per month revenue or 1.8 million per annum.

⁴ CSP - Carriage Service Provider

It would appear to me that the neither the courts^{xviii} nor the legislature has grasped the magnitude of the numbers of individuals whose activities could be classed under the content industries' guidelines as "offending".



According to IPOQUE^{xix}, P2P is increasing

The Question of Definition

There is some discrepancy about the word "piracy" that is bandied about so freely by the copyright industries and increasingly by legislators as a direct result of the rhetoric from industry lobbyists.

File sharing should not be classified as an act of piracy.

The Online edition of the Oxford Dictionary defines a Pirate as:

Pirate^{xx} • noun

1 a person who attacks and robs ships at sea.

2 before another noun denoting a text, film, recording, etc. that has been reproduced and used for profit without permission: pirate videos.

3 before another noun denoting an organization that is broadcasting without official authorization: a pirate radio station.

Note, with regard to content, "profit" is a key ingredient in parsing the word as an epithet. There is no 4th entry for non-profit oriented copying of copyrighted content.

Searching Wikipedia, for "piracy" results in;

This article is about maritime piracy. For the term referred to as [copyright infringement](#) or other uses of "piracy" or "pirate", see [pirate \(disambiguation\)](#).

Copying CD's and selling them is clearly a crime. Promoting content by telling someone about it and giving it to them to listen to or to view is an age old practice that used to be called word of mouth marketing.

The process of Government is to create laws to keep the population safe.

The question is then what is the definition of safe.

When the majority of the population consider that something is right and just, is it not time for the Government to rethink its policies and how it applies the letter of the law?

In a recent presentation to MIPI we included the following data:

Are “at home” Mums the worst offenders?

- KAD users come and go and several samplings were taken over a 24 hour period. The Biggest surprise was Hi-5.
- At 3:30 PM 1120 users were sharing 502 Hash Files. By 10:15 pm 4/5ths had disappeared.

Hi-5

3:30 PM		10:15 PM	
Hash Files	Peers	Hash Files	Peers
502	1120	99	275

When the mothers of Sydney are downloading old versions of Hi-5 for their children’s education/entertainment, it is time to consider re-thinking the term “The Moral Majority.”

As an exercise in moral determination of music, movie and game downloading – I challenge every politician, every advisor and reader of this document whose children were born between 1980 and 1995 to ask their children candidly if they think it should be legal to download music via the internet for free.

I feel sure without hearing the response that it will unanimously be “yes”

And, just in case that the desire to please the parent is stronger than the desire to tell the truth, a second question could then be posed. “Out of curiosity – do your friends do it?”

The current action vis AFACTS – vs – Ilnet, one of Australia’s Internet Pioneers, is because Ilnet, couldn’t afford the continuing resources of complying with a legislative instrument that provides no recourse for the recovery of costs.

In Trade Practices, if someone advertises a misleading and deceptive advertisement, the Newspaper cannot be sued.

This is fair and reasonable. But the same rule should be applied to ISP’s.

In Conclusion: The Scheme should be expanded to include all carriage service providers, and it should include the ability that all CSP's can bill the issuer of the take-down notice for the time spent in responding to his "safe-harbour" legislation enabled "demand".

It is my opinion that the legislation should open the doors to chargeback billing by the Carriage Service Providers and let the courts work out how serious the copyright industry is.

By definition, universities are exempted from being classified as CSP's. Recognition of this should be made in any amendments to the Bill since universities have always been the basis of a nation's economic future and, mindful of Mr. Ross Jones' (Commissioner, Australian Competition & Consumer Commission) comments;

"or if it fosters successive innovations (incremental or "leap-frog") by requiring access to the intellectual property of the initial innovator."

Consideration should be given to extending the umbrella of Safe Harbour to all Australian education facilities.

Q.24 Does Australia's copyright law unreasonably inhibit the operation of basic and important internet services?

Paul Budde of BuddeComm estimates that broadband could add over \$100 billion to the Australian economy, including the distribution of services to customers; and as a communication tool and by savings to health care, education and energy needs. Because the rest of the world is progressing much more quickly, Australia is losing out on competitive advantage. The key factor for this failure is moving from technology to affordability. While the technology has become available (ADSL2+), the price is too high for 60%+ of current broadband users. Approximately 90% of Australia's national network could feasibly be upgraded with an FttN rollout. We believe this will ultimately happen over a 10 year period to 2018.

The fact is that Internet in Australia has grown to represent almost 8% of our GDP, through broadband access, university ICT course registrations, software start-ups, EBay sales volume and our brain drain exports to Silicon Valley, Germany and the UK.

Legislating regulatory artificial barriers are and will continued to be ignored by a generation that has always had Internet connectivity unless alternatives are offered.

Every business has a beginning, a middle and an end. The CD based business model has reached its long past-due end. When the industry was finally dragged kicking and screaming into the 21st century and agreed to provide music digitally, the majority of users that could afford to download and pay for their content commenced to do so.

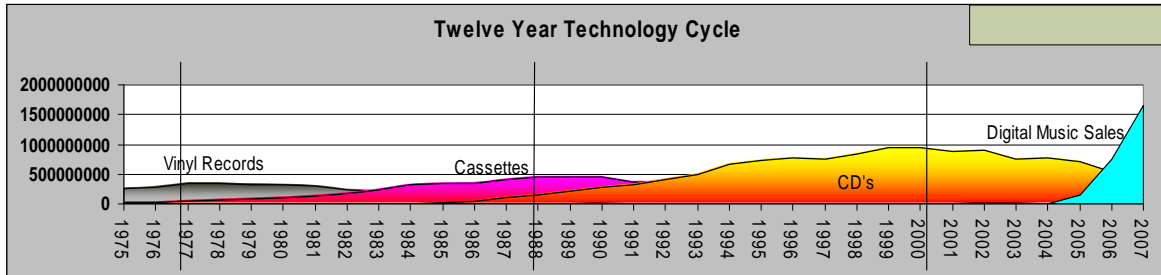


Figure 1 The Twelve Year Technology Cycle

Source: Koltai Gilbey 2008

Those that have not purchased music digitally in the past due to non-availability, are doing so now, as is clear from the Ipoque statistics provided on page 35. These are in the minority and the time has come to move on.

People will always share that which they like.,the sharing of pop culture should be lauded, since it promotes consumption. It should be categorised as fair use, not larceny.

I respectfully request the decision makers to consider this when attempting to legislate that which will automatically incriminate 100% of the next crop of voters who already consider that time-shifting and downloading are the same.

To place this in perspective, consider the pricing model available to Australian subscribers of Foxtel today:

- For \$92.00 per month, a user may record to his Personal Digital Recorder 487 movies.
- This results in a per unit cost of \$0.18 cents per month.
- In a typical nuclear household there are four people which then further reduces the value to under 5 cents per viewer per movie.
- On occasion, friends will be present and the value per piece of content is then further reduced.
- Most of the available content is repeats of old content.
- There appear to be between 12 and 18 new movie releases per month on Foxtel.
- Therefore if a sliding scale were used, that would be 12 movies at \$5.00 each and the balance of movies (considered deep catalogue and reruns) calculated at \$0.18 cents each.

Australian Broadband users already pay to download movies via P2P at an equivalent estimated cost of \$3.50 per movie which ironically appears to be the wholesale value of a movie⁵ at its third six month period of life when released via DVD by the studios.

Somewhere between the cost to the new age fair users and the accepted cost of Hollywood there lies an acceptable commercial median solution that should satisfy all.

Every child needs to be able to share their environment with their peers. This is and always has been part of the process of being a child. It is an integral part of the learning process. "Share your toys!"

⁵ Koltai T. - An International Analysis of the Real Value of a Digital DVD Movie.
 January 10, 2009 03:13AM (EST)
http://www.perceptric.com/blog/_archives/2009/1/10/4051203.html

In this regard, our children should have at the least the same level of opportunities as our forefathers; vis, the copyright laws of Australia need to be altered to reflect that no child under 18 who is a full time student (including their legal guardians, for the minors actions) can be punished for sharing any content that is not sold by them for financial gain.

The Right Honourable David Lammy (UK Minister of State for Higher Education and Intellectual Property) said it well when he said:⁶

“We believe that there is scope to build on the Gowers Review and consider a wider range of issues in relation to copyright. It is vital that we have a system that supports creativity, investment and jobs and which inspires the confidence of businesses and users. The new Strategic Advisory Board for IP (SABIP) will have an important role in this work and I look forward to receiving their advice.

In building a long term vision for our copyright system we need to look internationally as well as within our own borders. Debates on how our systems may need to evolve are already starting and the UK has an important opportunity to lead the way. The future of content is global. The future of copyright must also be global.”

Q.24a If so, what are the nature of such problems and practical consequences?

Television is the primary source of news for most Americans, and an important part of our culture. Certain broadcasts – from the Nixon / Kennedy debates to the Rodney King beating – qualify as historical events in and of themselves and should be available to scholars of the future.

Without a dedicated effort to collect, catalog, preserve, and serve them to the public, televised events such as the Murphy Brown – Dan Quayle interaction will remain difficult to access, or be lost entirely.

The Television and Video Preservation 1997 report notes that “Educators who testified in the public hearings strongly and consistently indicated that access to television and video archives for educational purposes is limited for a variety of reasons, the most vexing of which they attribute to copyright.”

After searching for Murphy Brown, it seems reasonable to ask whether we will be able to look back in fifty years and watch the historical events of our lifetimes, or whether televised history will be lost in a copyright-created memory hole. As George Orwell noted in his novel 1984, “Who controls the past controls the future: who controls the present controls the past.”^{xxi}

Libraries in Australia currently archive copies of all Australian **print press publication**.

This should urgently be expanded to all forms of digital media. The content should be available to anyone one year after its creation date for research purposes.

This needs to be legislated, or our only hope of finding the Murphy browns of Australian TV News broadcasting history will be the Youtube skits that have not received a channel, 9, 7 or 10 take down notice.

P2P Index Sites like <http://www.tvu.org.ru/> maintain an index of both new and old Television Content.

Q.24b How should these be overcome?

⁶ Page 2, <http://www.ipo.gov.uk/c-policy-consultation.pdf>

To overcome huge problems, we must think huge ideas.

The solutions that served us well in an analogue era, obviously have failed at the beginning of our digital era.

The copyright owners require remuneration for their content.

There has not been an empirical evaluation of the loss incurred by them.

Therefore the courts recently have started having problems in awarding damages.

Therefore there is a valid reason to committing resources to evaluating the real damage caused by file sharing.

The calculation of a movie's value can be accurately calculated over time using hedonic principles of valuation.

Anecdotally, and in sixty seconds we can attempt a similar result using an easier and cheaper method.

The real value of a program's copyright value can be calculated by analysing subscriber fees, e.g.: Foxtel and Amazon.

Foxtel stream repeats of old programs at (\$0.06 cents each 30 minutes) and Amazon (\$0.04 cents per thirty minutes)

Therefore, a 15 year old who downloads (on Australian broadband bandwidth plans) a maximum of 15 movies per month per 10 GB^{xvii} monthly download limit, is in real terms time-shifting 15 x \$0.15 cents per month. Or \$2.25 per month (total consideration including the \$49.95 bandwidth utilization = \$3.48 per movie.)

Possibly, instead of vilifying the aforementioned 15 year old, we should teach him that if he wants to continue to download \$2.25 per month value of movies, then he should have to in some way pay for it.

We have discussed elsewhere that that the carbon footprint of a single DVD is equivalent to say [commercial in confidence] \$4.40 of carbon offsets.

The 15 year old downloader unknowingly saved the planet an average of \$63.00 in Carbon emissions.

Shouldn't we pay the downloader for his good deed rather than remonstrating with him ?

Well yes and no.

If we do, without him having to ever pay for his content, future generations will wind up with no industry to manufacture content for the future little johnnies to save the planet from.

However it can be argued that without little Johnny, the content industries would most likely not have entered into the digital age – and without P2P they would most likely already be in trouble for their carbon (and other) emissions.

Like the magician on the stage – “Watch this hand.....”

I am currently preparing a paper on the greenhouse gases emitted by the content industries in the last fifteen years. It seems to indicate that the carbon impact of disc delivered content is very large.

Lets explore the next logic step:

By implementing a consumer based Carbon Credit funded monetisation plan, Australia could monetise P2P, repeal the (archaic) copyright legislation and move forwards into a Digital Economy and build strong consumer trust.

An Excerpt from a Blog Article - The Human Generator.

The average human adult ingests between 2000 and 3000 calories per day. To translate this into energy we need to analyse the measurement and conversion process.

1 kilojoule = 0.24 kilocalories (often called Calories)

1 kilocalorie = 4.18 kilojoules

1 Megawatt = 1000 Kilojoules per second (= 1 REC)

If you're of average size, when at rest, you use energy at about 1,500 kcal a day. This is equivalent to 1 kcal a minute.

An average person is thought to eat about 2,000 kcal a day.

If you stand up, your body's energy requirement increases by about 20% to say, 1.2 kcal a minute.

If you walk slowly at 2 km/hour this will double your energy output – 2 kcal a minute.

Walking at 4 kilometres per hour uses 4 kcal per minute or 16.67 Kilojoules of energy

A beginning methodology of Calculating Walking REC's for Consumers.

Distance (Kms)	Distance (Metres)	Steps Per Metre	Km per hr	Kcal Per Min	Kjoules	Mwatts	Apparent value \$	Value per Step \$
1	1000	2	4	4	16.66667	0.0046	0.05	0.000102
216	216000	2	4	4	3600	1.0000	11.00	0.000102

So there we have it anecdotally speaking.

To translate this into a CDM, we need empirical data and methodology.

Fortunately, we have some due to one of the Greenhouse Gas Abatement Program (GGAP) TravelSmart projects.

[Andergrove/Beaconsfield TravelSmart Destination \(Double Destination\) Project Results](#) were funded by the Department of the Environment and Water Resources, Australian Greenhouse Office (AGO).^{xxiii}

Q.25 Is there non-copyright legislation that is directly relevant to digital economy businesses that create uncertainty or barriers?

Researchers have found that “concern over quality of goods, commercial redress (refunds) and potential delayed delivery times” are all potential barriers for uptake by consumers.

In this regard, very few Australians understand the rights offered them under Trade Practices Legislation.

A simplified consumer oriented declaration on consumers rights for e-commerce based transactions is called for to address the public's concerns.

A simplified one page overview of the protection afforded under Trade Practices – required by law to be advertised on every e-commerce web site in Australia would go a long way to remedy consumer concerns.

The creation of a special Trade Practices "Swat Team" would also assist consumer confidence. The Banking Ombudsman is not sufficiently equipped to handle the influx of calls relating to Internet banking scams. His role needs to be separated from this area, with a special 1-800-bankscam hotline set-up manned by Government "Treasury" officers

SECTION 5. Digital economy and the environment

Carbon Footprint.

Metropolitan Carbon Footprint is based on proximity to services, including schools, shopping centres and entertainment venues.

Compare this to persons living in regional and outlying regional areas that often have to travel 50-100 kilometres to post a letter, pay bills or get the morning paper; and it is obvious that the necessary carbon footprint of remote dwelling occupiers demands urgent attention to ICT and broadband delivery to the remotest corners of our continent.

Industry, for example the plastics, alumina, animal products and motor oil industries, generate higher incidences of harmful atmospheric emissions than others.

A cap and trade regime will do much to alleviate this problem as those industries look for ways to reduce their emissions to lower the monthly purchase of REC's.

Unfortunately, many industries like coal fired power generation will continue for some time in many locations and there is little we can do about that in the immediate future, and is not relevant to this document directly, unlike the CD/DVD manufacturing industries that have a carbon footprint of [commercial in confidence], \$4.40 per Disk.

In other words, the pressing of 1 million copies of a movie theoretically adds 440 million dollars of Carbon offset equivalencies to our global carbon footprint. Many of these Disks are pressed in third world countries or, emerging economies.

The content on these disks can and should be digitally transmitted. This is something the Government can mandate immediately.

Q.26 What, steps, if any, should Government take to promote the greater adoption of teleworking and videoconferencing?

1. The issue of Consumer Rec's.

Consider the issue of carbon credits for anyone who opts to teleconference or telework based on the number of kilometers they live from their normal workplace.

I have identified a number of key consumer generated CDM's that can be applied for;

- Email – Automatic Receipt provided monthly accounts – Gas, Electricity, Water, Council Rates,
- Telephone, Internet – paid for electronically, per Bpay or similar.
- Bicycling to work, or school, one day per week regime.
- Mowing lawns with hand push mowers in preference to two stroke lawn mowers.
- Car pooling in 40gm CO2 per 100 Km or lower vehicles.

In fact, the issuing of consumer generated carbon credits/REC's has been mooted [xxiv] before now and as well as assisting the environment, their adoption may well be an interesting boost to the economy.

2. Altering all Government Flying to economy Class.
3. Banning any Government Vehicles allowed to be driven home.

Q.26a What impact do Operational Health and Safety laws have on the uptake of teleworking and videoconferencing in your industry?

No response.

Q.27 The Government has already committed to review and propose regulation for e-waste and has taken steps to promote smart technology to manage scarce resources. Are there additional steps Government can take on these issues?

All Government Documents need to be archived for all time including every memo, email, research report, and/or ministerial advice.

Storage is no longer a cost issue and digital storage can be constructed of HDU's that sleep in between retrieval searches.

Greenstein, 1991 in an anecdotal retelling of his hunt for all Government data in relation to the growth of computing in the US during the years 1973 to 1983, makes a strong case for archiving all Government data;

"digital technology makes it incredibly easy to destroy what could not have been gathered without its invention in the first place. While digital technology makes the storage of more information less costly. it also makes the misplacing, erasure and elimination of historical data less costly."

A further quote from the US office of GSA: *"We don't keep track of any of the changes. We don't keep backups from past years. The government only needs the present year's data."*

He concluded that:

"government [who are not able to calculate the future value of present data to historians and economists] of today is interested only in the current data set and is likely to discard what it can no longer sell."

On that basis, I include the following recommendation:

- The setting up of an Australian archive of all electronic information.

I strongly recommend the implementation of large cache servers in all Australian capital cities to minimise network disruption, decrease access times and to sequester the content from being removed.

E-Data needs to be secured against potential loss.

Whilst companies like Akamai and various organisations in Australia have set-up some limited caching, it is incomplete as a resource for all Australian content when compared for example to the Smithsonian.

Anecdotally, I was desirous of retrieving media content from April, 2005 and discovered that none of the Australian networks had retained filetape of the event. The only copy that exists to my knowledge is a poorly recorded VHS tape that my partner made “illegally” of a channel 7 broadcast.

My experience in this regard is not unique.

First is the decay of physical media. The PrestoSpace *Annual Report on Preservation Issues for European Audiovisual Collections*, which covers film, audio, and videotape, states “At current rates of preservation work, and with audio and video material beginning to degrade after 20 years at 5% per year, 40 % of existing material will simply disappear by 2045. This is a best case figure ... At worst ...70% of existing material will simply disappear (by 2025).”

In this regard, I have mooted that the world consider nominating the P2P filebase as being a historical treasure to be considered in the same category as official library collections.

Q.27a What additional steps can industry take in relation to these issues?

Whilst I do not consider this document to be the ideal place for the following suggestion; because regretablely, on first reading, my recommendation may be initially viewed as Orwellian in its suggested implementation, nevertheless, I consider that to achieve the most advantageous outcome for both government, industry and consumers, an Australia Data Centre needs to be constructed that provides access to all datasets; and I proceed on the basis that the idea may not have the opportunity to be raised elsewhere.

I suggest that the establishment of the datacentre should possibly be a joint Fujitsu/EDI/IBM with a Google front end national database centre,

The datacentre would by design be split into four distinct locations. One IBM, One Fijitsu, One EDI and one Google.

Both Fujitsu and IBM would be required to submit to the specifications of Google (as the front end) and EDI as the backend. Each of IBM and Fujitsu would have duplicate data and requests would alternate between the two – providing redundancy and protection against data removal or tampering.

EDI would be responsible for cataloguing, identifying and hierarchal organisation of the datasets on the basis of Goggles ongoing search engine results, thereby ensuring that Australians are best served by their changing economic search requirements.

Funding

I would suggest that the funding needs to be organised via three separate methodologies. Initial capitalisation through the issue of a 25 year bond, with appropriate tax credits ensuring a 100% recovery of cost for a minimum of fifty years to the participants.

On-going maintenance, and operations will be funded by way of ICT Carbon Credits based on the number of documents served electronically.

In other words, the more requests received, the higher the Carbon Credit revenue to the participants.

Management of Data.

No data once supplied may be removed or altered ensuring an accurate history for forthcoming generations.

It should be managed by an oversight committee formed from:

- One ISP/Telco Representative
- One Broadcasting/Media Representative
- One EFF Representative
- One Parliamentary Secretary
- One AG (Attorney General) representative
- One representative from the Australian Computer Society
- Two undergraduate students, no older than 21.
- and Chaired by the Dean of Economics of the first university in a roster of all AU universities.

Members will selected by random methods from amongst a list of all persons in Australia that qualify for any of the roles.

Rules for participation for the honorary roles should be the same as those that apply to Jury Duty.

The oversight committee would be the only ones to be able to give EDI instructions.

The committee members should have a six month tenure and all committee meetings, and communication from or to any members of the committee are to be made available publicly.

Any attempt to lobby or influence the committee should be articulated as a capital crime. In this manner, truly open and economically PSI will be available through what will rapidly become a model for the rest of the world to adopt.

I have no interest, either financial or personal in any of the companies mentioned above. Other companies may be more suitable for the roles I have delineated. With the exception of Google, all other company names were utilised to allow the reader to view a vision, based on solid reputable deliverables.

SECTION 6. Measuring the digital economy and its Impacts

Q.28 What, if any, additional datasets should government collect to improve the benchmarking of Australia's digital economy?

In the United States, the US flag flies from buildings in almost every street block, adorns motorcycle helmets, fast food branding campaigns and is prominent on all Government buildings. The Land of the Free has managed to invoke a national spirit that other countries only glimpse at Footy Final, Test Cricket, or the Olympics.

Whilst not wanting in any way to dampen the Australian thirst for foreign culture, news and opportunities, I would dearly like to see some of that American style patriotism put to work in a meaningful way in Australia.

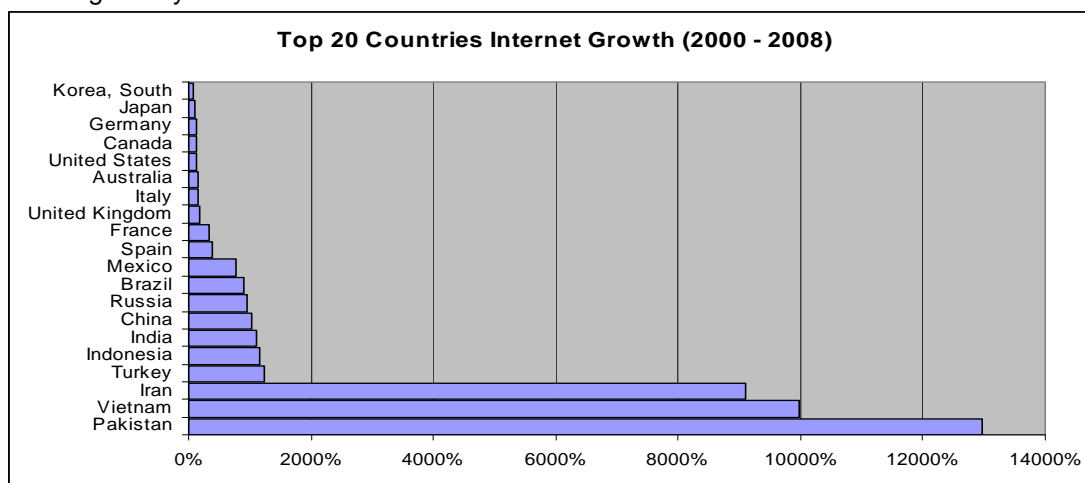


Figure 2 Fastest Growing Internet Adoption Countries

Sources: CIA Factbook, OECD, World Bank, IMF

Making the Internet and the Digital Economy a Public issue with lots of media coverage – hopefully by utilizing Australian Sports Heroes to present informative 30 second adverts on how much this initiative will add to the Australian average standard of living.

The number of internet users in Australia would be a logical place to start.
The last complete report was INTERNET ACTIVITY AUSTRALIA 8146.0.55.001
EMBARGO : 11.30 AM (CANBERRA TIME) 29th Nov 2007

Internet subscribers by (ALL) access technology, for ISPs with more than 10,000 active subscribers									
Data Cubes	Jun qtr 2006	Sep qtr 2006	Dec qtr 2006	Mar qtr 2007	Jun qtr 2007	Sep qtr 2007	Dec qtr 2007	Mar qtr 2008	Jun qtr 2008
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Total ISPs									
New South Wales	1,994	2,031	0	2,127	0	0	2,240	0	2,322
Victoria	1,457	1,517	0	1,537	0	0	1,636	0	1,727
Queensland	1,256	1,274	0	1,299	0	0	1,386	0	1,512
South Australia	398	418	0	418	0	0	419	0	496
Western Australia	586	663	0	702	0	0	692	0	780
Tasmania	127	150	0	159	0	0	152	0	150
Northern Territory	44	45	0	55	0	0	48	0	56
Australian Capital Territory	84	129	0	132	0	0	172	0	184
Australia	5,945	6,227	0	6,429	0	0	6,745	0	7,228

This dataset is critical. It is the first figure on which everything else must be based on.

It should be accurate and it should not have Business and Governments included.

There should be three distinct separate data-sets, one each for Business, Government and Home.

Other datasets currently collated by the ABS include:

MPHS Multi-Purpose Household Survey
 ICT information and communication technology
 HUIT Household Use of Information Technology

With collection data collated and described by:

ASGC Australian Standard Geographical Classification
 ASCL Australian Standard Classification of Languages
 ASCCEG Australian Standard Classification of Cultural and Ethnic Groups
 CD collection district
 ANZSIC Australian and New Zealand Standard Industrial Classification
 ANZSCO Australian and New Zealand Standard Classification of Occupations
 AIGC Australian Indigenous Geographical Classification

Unfortunately, there is no ABS data for Mobile phone take-up, [although this collected by ACMA], which will be disastrous in the longer term, as the majority of Digital E-commerce in the eastern block European countries is now being initiated and completed on mobile phones.

One of the obvious elements of the Internet generation is that large industry has lost control of market domination.

Success is driven by consumer perception of price, convenience, delivery and quality in that order.

In that regard, this request for comments needs to be expanded to include every Australian.

I strongly recommend an Australia wide specific digital economy start-up survey

Questions should be structured that discover the main uses of internet.

Age – Bracket Question

Location – Postcode – **NOT** ABS ASGC.

Devices Used for navigating the Internet – Please Tick all that apply

Mobile Phone	Own	Neighbours	Friends	Parents	School
Smartphone	Own	Neighbours	Friends	Parents	School
Desktop	Own	Neighbours	Friends	Parents	School
Miniature Laptop	Own	Neighbours	Friends	Parents	School
Normal Laptop	Own	Neighbours	Friends	Parents	School
Home Entertainment Server	Own	Neighbours	Friends	Parents	School
Computer Connected to TV	Own	Neighbours	Friends	Parents	School

Applications used

- Do you use email Daily, Weekly Occassionally
- Do you receive any newsletters by email ? Daily, Weekly Ocassionally
- Do you read any Australian newspapers online? (Please List in order of favourites first.)
- Do you read any foreign newspapers online? (Please List)
- Do you read any bloggs online? (Please List)
- Do you use Youtube Yes No – What is your favourite Youtube video? (Please Paste URL)
- Have you ever recommended youtube content to friends? (how often ?)
- Do you use Myspace (how often a week?)
- Have you ever downloaded music ? (Please note – free and paid for – together)
- Have you ever downloaded a TV episode ?
- Have you ever downloaded a movie?

E-Commerce Questions

- Do you buy anything from EBay?
- If yes – last year approximately how much per month did you spend with EBay ?
- Have you sold anything on EBay ?
- If yes – and on the basis that this questionnaire is anonymous and the results are not being made available to the Australian Tax Office – Last year, what was the sum total of all your EBay sales – approximately.
- Are you happy with EBay ? (If not, please explain briefly – why not?)
- Are you a bidding or selling member of any other auctions facilities e.g.: Yahoo,
- Have you ever purchased anything from Deals Direct ?
- Do you have your own web site ?
- How long has it been operating ?
- Do you sell internationally or only to Australian customers?
- Do you have regular customers that purchase from you via the Internet or are they all considered by you to be casual customers ?
- Approximately, what is the number of customers that purchase regularly from you every month ?
- How many of your casual customers have returned for more than one purchase experience to your web site ?
- If the government could give you one wish for your online business – what would it be ?
- What is the highest price you have ever paid for a single item on the internet ?
- Have you ever purchased anything via mobile phone – If yes was it Voice Browser SMS

Banking

- Do you pay any of your bills via the Internet ? If yes is it 25% 50% 75% or 100% of your bills.
- Do you have any concerns about paying for items over the internet. If yes – What are they ?

- The questionnaire I envisage is a lot longer, however, I think this demonstrates the level of initial query required from which to analyse a baseline.

Options to the paper survey would be an online survey, with a series of prizes.
A series of adverts should be made outlining the importance of the survey.

First Prize being a total tax return for each member of the family for ten years – provided all adults in the household complete the survey..

Domain Names as an indicator of Progress.

Collection and publication of .au domain registrations statistics, in a manner similar to the football results. In other words, involve the public with the comparison of how many domain names we have registered in Australia compared with Domains registered in the USA per capita of population.

A questionnaire sent to all Australian companies that elect to register a domain under an international TLD, requesting why the company chose an International TLD instead of an Australian one.

Consumer Financial Transactions as an indicator of progress.

Collect electronic bank account statistics from each bank, post office and paypal.

How many accounts there are, how many people paid bills this week using each method?

Collect statistics from companies who send bills. How many sent bills this week via Australia post -v- how many sent bills via email.

Explain the results to the population in an interesting, patriotic manner.

Statistics in themselves are boring. However, put that really boring statistic in the mouth of a well groomed, attractive TV presenter, and there is a 3 minute morning segment on the Today show with which with polish could make CNBC, CNN et al.

Good morning Australia, the numbers from the Ministry of Economic Commerce are in showing that Australia edged forwards in the global financial race by 2 points overnight, meaning that all of you now have a standard of living equal to people from the country of.....

This was achieved by more of you electing to pay your bills by Bpay this week which has saved trees from being chopped down.

An additional web sites were registered this week and our pick for the site of the week being for their innovative use of P2P to deliver a strong product list of fascinating products for you to buy.

Hit parade this week shows is at number one with x million hits to their website which is all about.....

Statistics show that whilst appointment to view television ^{xxv} is on the way out, Australians still like their morning show at breakfast.

Detailed analysis of all EBay transactions involving Australian manufactured goods and services.

Number of hours of viewing of FTA television programming.

Number of hours of timeshifted programming. – (At a minimum, the Foxtel IQ Pace Box (utilized by Foxtel, Austar and Optus) is capable of reporting this statistic.)

In May 2008 at the International ITU conference in Geneva, Martin Schaaper from the OECD, Directorate for Science, Technology and Industry Economic Analysis and Statistics Division

prepared a powerpoint ⁷ “Measuring Security and Trust in the Online Environment” wherein he compared and analysed the apparent reasons for lack of take-up.

A similar Australia wide mandatory survey sent to every household would enable the Government to development a basepoint benchmark.

I nominate household as opposed to business for the obvious reason that many Australian SOHO business are not known as businesses, fearing council regulatory intervention.

Q.29 What do you consider are the key digital economy indicators?

The number of EBay auction sales closing during business hours as opposed to after hours.

PC Parts sales. (Specifically, Hard disks, Memory and Graphics adapters.) Showing a consumer desire to increase computing capacity and capability.

Computer game sales – today’s game stars are tomorrows jet pilots and stock-brokers.

Minutes used per application on mobile.

Mobile Phone subscription levels.

Non-volatile memory (SSD⁸ storage) growth and Atom CPU processor power in mobile phones.

Implementation of 802.11g/n in mobile phones

Uptake of PVR and DVR (possibly not TIVO) devices vis consumer preference for DAC (Disk to TV), VOD, and PVR/DVR devices in essence lessening the impact of “appointment Television” and its associated revenue earning and traditional consumer call to action advertising segmentation.

The analysis of commercial applications in social networks

Q.30 What additional industry sources of data exist which provide background on digital economy metrics?

⁷ http://www.itu.int/ITU-D/ict/conferences/geneva08/Session5_Schaaper_security.ppt

⁸ SSD - Solid State Disk

Q.31 What additional research and data work could industry or data collection organisations undertake to assist in measuring Australia’s digital economy?

Hedonic regression enabling a more accurate real GDP output.

Applied initially to the product – Web Page with Shopping Trolley^{xxvi}

Q.32 Do you have views on the adequacy of the existing data sets or suggestions as to how they might be improved?

ABS Indigenous Populace Data

The indigenous members of our population should not be discriminated against by having their data collected individually and displayed separately. Our population is a multi-cultural society whose strengths and weaknesses need to be addressed as a body, not singled out.

Besides, from my time⁹ amongst many of the Northern Territory, West Australian and North Queensland Aboriginal people, it is obvious to me that many are not accounted for in the ABS stats and the figures therefore at best the numbers are representative only of a statistical subset analysis skewed by the omission of the walkabout indigenous population.

Conclusion:

When we realise that the copyright laws introduced during the analogue era are not relevant in the digital domain and that criminalizing youth for doing what youth have always done, then our digital economy may start to have some avid constituents whom will vote accordingly when the mantle of selecting the next Government fall on their shoulders, in two years time.

GLOSSARY

SSD - Solid State Disk

CDM - A Clean Development Mechanism is a method of reducing, sequestering or eliminating CO2 and related emissions into the environment.

EDI – Electronic Data Interchange

EFF – Electronic Freedom Foundation

GEO- Latitude and Longitudinal location as in GPS

HMPO – Her Majesties (Queen Victoria) Postal Service

ISP – Internet Service Provider

TELCO – Telephone Company

Piracy - Piracy for the purposes of this document needs to be separated into two distinct realms.

The act of Physical Piracy including downloading, burning to disk and selling to obtain a profit.

The act of time-shifting (Foxtel IQ) or downloading for personal consumption is not Piracy The two are distinct and separate, yet the Music and Movie industries have bundled them together to vilify nearly 89%^{xxvii} of the population.

⁹ Negotiations for mining leases.

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19 August 2004 04:13 PM <http://www.zdnet.com.au/news/communications/soa/Analyst-slams-ACA-spectrum-auction/0,130061791,139156749,00.htm>
- ⁱⁱⁱ The Seventh Mass Media <http://smlxtrlarge.com/wp-content/uploads/2008/03/smlxl-m7mm-copy.pdf>
- ^{iv} **1788** London to Glasgow Mail Coach established, taking four days.
1819 Steam ships used for first time to carry mail.
Table 13.8 Postal services: P288
Economic chronologies Extract taken from United Kingdom Input-Output Analyses, 2006 Edition
Consistent with 2006 Blue Book and 2006 Pink Book
http://www.statistics.gov.uk/articles/nojournal/Economic_chronologies_2006.pdf
- ^v [i] <http://www.janeausten.co.uk/magazine/page.ihtml?pid=364&step=4>
- ^{vi} Wages were nine shillings a week for an able bodied man - Rev Herbert Brown who was Rector of St Lawrence from 1901 and went on to write the excellent histories of St Lawrence and Bradwell on Sea in the 1920's <http://www.essex-country-life.co.uk/farmingwagesandconditions.htm>
- ^{vii} <http://msdemmie.wordpress.com/2007/08/06/the-royal-mail-doesnt-deliver-anymore/>
- ^{viii} http://www.culture.gov.uk/images/publications/digital_britain_interimreportjan09.pdf
- ^{ix} Callaghan, R. (1999, 8 January). Customer Queries Keep Alinta Gas Humming. *The West Australian*, (p. 30).
- ^x <http://www.ifap.ru/library/book047.pdf>
- ^{xi} Australian Made would include the Candlestick maker at the local markets but would exclude the importer of mp3 players made in China
- ^{xii} Home is a GEO coordinate passed during the Computer Identity handshake with the Government Database. Geo Co-ordinates should be a random point in a 175 m2.
- ^{xiii} BEA – REAL GDP <http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm>
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Consumer Generated Carbon Credits solve the Economic Arguments against Cap & Trade.
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^{xxv} Author, An End to Appointment Media January 3, 2009

http://www.perceptric.com/blog/_archives/2009/1/4/4046139.html

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