NCP Review

A reform proposal

To dramatically improve the efficiencies for digital
Telecommunications, Television and Interactive Multi Media

1 Introduction:

In this paper, I will give reasons why some of the policies based on the Hilmer report, have most serious flaws[i]. I will give examples of how policies based on “economic rationalization” and “self regulations” and “privatisation of infrastructures” have negatively influenced government objectives. I have proposed a reform program for telecommunications as an example of how major efficiency improvements could be achieved for all Australians.

I will explain how the informalities from the Hilmer report have permitted a private media cartel, the opportunity to exploit Telstra[ii], even while partly privatized. Without strict regulatory control and disciplines by government, Telstra has already permitted a private monopoly[iii] to have extremely negative influences on Australia’s telecommunications technologies and information dispersion policies. I will show why this is a serious breakdown in democracy and how the defects can be removed.

I will show that, if government retains the ownership of Telstra, government can, at little cost, implement a reform program to re establish the digital transition objectives and media diversification and achieve major economic efficiency gains for future Australians. I will explain how the telecommunications infrastructure can then be equated with a physical transport infrastructure and be effectively and democratically regulated and administered.

2 Industry and commerce

Over the last two decades governments have been influenced by policies based on “economic rationalization” to improve the competitiveness and efficiency of markets. The focus has been to allow “market forces” and privatisation of infrastructures to create competition and price pressures. I will show that these changes have resulted in economic disciplinary gaps and $billions of waste that have led, in particular, to private monopolistic opportunities to manipulate and exploit consumer markets and public assets. By applying new measures for market disciplines, these gaps can be reduced or even eliminated.

It is the skills of people in industry, agriculture and technologies that develop, build and provide the foundations and infrastructures for towns, cities and national and international networking, for the wealth and health of rural and urban communities. The efficiency and productivity advances and declines of nations in local, national and international markets are dependent on the effectiveness of the relative education and training in the appropriate and focussed skills.

These are community social skills that are further developed for research, product developments and realization of market values processed from natural and artificial, local and imported resources for local, national and international markets.

Commerce is about all financial aspects and values relating to the purchase and sale of goods and services, trade relationships, social relationships, public opinion and attitudes re markets, products and services and social values. Commerce supports industry by providing the capital to expand the industrial and commercial processes in multi competitive markets.

Government is the mechanism to maintain political authority over the actions and affairs of the people. Public infrastructures provide the supportive foundations for education, health, and information flows, goods flows and money flows to stimulate an efficient and balanced democratic relationship between the two, “industry” and “commerce” for the people.

During the last two decades, it is clear that the political authority over “industry” and “commerce” is way out of balance. This has come about in particular by media exploitation of the “economic rationalization”, the outcome of the Hilmer report that focused on the liberalization of commercial practices resulting in the negligence of disciplines for long term planning and consumer protection. The trend is towards media and institutional consorted and narrowly focused information constraints to exploit markets. The powerful concentration and cross ownership of commercial media focuses on short-term capital gains. This has replaced the public dispersion of broadly based cross section of useful and more

intelligent information, essential for a healthy diversity of ideas and opinions for long term developments.

Media ownership and cross control of media is more concentrated than ever. "Self regulation" and "market forces" that omit consumer participation, are replacing government authority and are undermining the importance of foundations and the importance of the disciplines for fair trade and public access to communications and information. Consumers have less protection from the increasing opportunities for market abuse. This is an undemocratic trend.

The government "economic rationalization" policies of the 90s, were publicly promoted and included diversification of media ownership. It included the digital transition program to exploit the vast efficiency opportunities of the new and revolutionary digital technologies. The transition to digital would provide the public and the government with the opportunity to diversify media ownership and control, and implement a major breakthrough in the efficiencies of communications and information flow for all. At the same time, compulsory superannuation schemes were politically promoted to support investment in industry. Telecom Australia invested in the world's first major program to build a national optical cable network to provide for Australians, a network ready for the digital transition.

This digital program was well understood by the media as major threat who, for decades, have had the monopoly on television markets.

Following the official launch of the new policies, governments have been completely diverted from the original stated and intended objectives. A media cartel promoted and exploited the wide spread informalities and opinions that evolved from the Hilmer report to achieve their long-term objective, to block diversification of media ownership. Media not only blocked diversification but also were able to further concentrate and consolidate ownership and political influence. A media cartel now controls Telstra to monopolize PayTV. All commercial media now echo, without question, the economists' ideas that Telstra should be privatized.

In any society the most critical element for the efficiency of the economy is useful and timely information to add intellectual values to people involved in industrial processes and people involved in improving the efficiency of economic processes. When nations no longer have widely independent diversification and dispersion of information and intelligence throughout the nation, governments lose political control on economic and industrial policies.

When media have a monopolistic daily opportunity to impose on the public, constrained, filtered repeated information, and to express superficial and unchallenged opinions, consumers are unwittingly losing their democratic and social rights. Political authority becomes the domain of the commercial media that are monopolizing the dispersion of information.

Threatened by digital transition, the first interference activity by the media was to distort public understanding and attitudes re digital convergence. Their idea of digital transition was to promote attitudes and beliefs that this meant the convergence of television and newspapers. The second was the idea that our society was in the information age. The third idea was that spectrum should be auctioned. The fourth idea was that Telstra cable was for PayTV. The fifth idea was that PayTV could have advertising.[iv] The long-term idea was that telecommunication infrastructures should be privatized.

The media has distorted the "what's and how's" of the new technologies for digital telecommunications and digital television and inter active multimedia in a way that has the public and governments totally confused. This will be explained below.

For industry and commerce, every age is the age for more information. The more intelligent the information diffused throughout societies the better the economic growth. History has ample proof that misinformation is the catalyst for disorder and chaos. The idea promoted continually by the media and as a political public attitude is that information technology was the "Big Thing". The media has never attempted to explain that the "Big Thing" this decade is the "Digital Transition Age". Digital technologies are a major sector of the world's highest growth economies used for many industrial, commercial and social processes other than for just information.

Australia still talks almost daily about "IT" technologies while China learns about "digital engineering" and markets digital engineered products for Australian markets, an engineering activity Australia aborted over a decade ago. China has the worlds fastest growth in technology markets, the world fastest growth markets!

The EEC proudly supports the program for open learning, and information dispersion, a major attribute of digital technologies and has very strict recommendations for the diversification of media. Australia was the first in the world to apply the new technologies to a telecommunications infrastructure and with this experience, Australian industries won markets in China. I will explain how media persuaded the government to interfere and abort the Australian digital transition program and with this, also Australia's technology business with China.

USA is battling to progress with its digital transition program. The major constraints in USA are the commitments to hundreds of independent cable companies and telephone companies that must be technically integrated to realize the full potential of the digital transition. Not handicapped by old analogue coaxial cable systems and the many disintegrated phone companies, Australia was the worlds first with the world's best opportunity, but this program was deflected to satisfy the private interests of a media cartel.

At the time, China became interested in Telecom Australia's program and progress and, also not handicapped by the past commitments, closely observed Australian experiences and developments with telecommunications infrastructures employed Australian companies to supply the engineering for programs in China – that is until the Australian program was aborted.

The very real danger for Australia is that government is steadily losing its democratic authority on the Australian economic policies and is becoming subtly but slowly subservient to the media objectives that align with financial institutions. Australia now is almost without pluralism in media markets. It is easy to show that to sell Telstra now is undisputed proof that government has lost complete control of technical, economic, social, cultural and consumer protection policies, in particular, re television and telecommunications.

While government, focused on "economic rationalization" ideals, the media kept government attention on "commerce" and defocused from "industry". In this paper, I will show how the political processes as a result of deregulation and self-regulation permitted the media to exploit public assets to destroy the digital transition program.

Deregulation is not a problem. The real problem is that deregulation of commerce also provided undisciplined "self-regulation" and "market forces" to override trade practice and fair trade regulations and governments' digital transition program. Competition has actually reduced or been constrained. Consequently, anti trade liberalization behaviours are permitting opportunists, to apply privately controlled and manipulative monopolistic practices to exploit Australian consumers.

Media owners have severely constrained public access to information and intelligence re critical issues. We see this from the Stock Exchange, the Shopping Centres, and Telecommunications and retail bundled pricing. We see it today with WMC. We see it with commitments re our road frontages, water and energy. We see the decline of pluralism in media. The media disperses government information in a rather filtered, perhaps secretive way. [v]Government statistics are expensive and complex to access and thereby become a privilege for institutions, too expensive for the youth of Australia.

The wide spread informalities from "self regulation" have permitted monopolists to influence social behaviour and to monopolize PayTV. "Self regulation" has permitted concentration of media ownership and cross ownership more so than ever. "Self regulation" has made sportsmanship a media business. "Self regulation" removed our research and technology objectives, re digital telecommunications, the mining industries, water and energy industries. "Self regulation" is allowing the Stock Exchange to be less transparent than ever, a special tools for institutions. "Self regulations" are constraining fair and liquid financial markets for all investors. Long gone is the total transparency of the floor trading processes. And with digital electronics it should be more transparent than ever. It is not. It is less transparent than ever.

The "economic rationalization" claims have provided financial institutions and brokers in Australia the opportunities to make huge today's market capitalization profits such as from the sale of North Ltd and BHP to overseas companies. As to the industrial and technology values of North Ltd or BHP for the next generation of Australians, the commercial media made no evaluation available to the public. North Ltd at the time was a world leader in mining technology. Today, 90% of the steels used in industry were not known ten years ago. Australia media do not provide the public with the research and education activities or promote the why's and how's Australian industrial, agricultural and engineering technologies should excel world standards and how to optimize local and international market values for Australians even when Australia has a [vi]CSIRO that could do so. The technology values of industry are now for China to earn the major profit from Australian resources, while institution profit from the sale of today's businesses.

The once respected industrial and agricultural technologies have been some of Australian major assets, some of the world's most valuable. Australians engineered the huge wheat harvesters used in USA and by most wheat farming countries in the world. The cranes used to build the 9/11 towers were the result of Australian engineering. Today, CSIRO is hardly ever mentioned or respected for its long-term research values in RF propagation, in metals engineering and land and water management for example. Far more important for economists is the potential of trading water rights, while more and more land goes back to wasteland. Water should not be a tradable commodity! Water availability and infrastructures should be based on needs.

With the appraisal of whether WMC could or could not be sold to overseas owners, one minister explained to the public, "we will study the economics before we agree to the sale". The treasurer explained that if WMC is sold to an overseas owner, the government has full control of how or where the nuclear materials will be used. These are superficial cut and paste statements of today's economic values and well-established world trade rules. The special values completely ignored are the most advanced and world leading engineering and technology values of WMC, grossly undervalued by Australia's market capitalization for the future of Australians in world markets.

The share value (market capitalization) remains for shareholders whether a company is controlled locally or outside Australia. However a much more important and critical issue is that control of WMC from outside Australia means that the long-term motivational opportunities for Australians are gone for ever. For Australians to take innovative roles, the initiatives and leadership in critical world issues re WMC, are gone forever. Even with head office in Australia, the responsibility and ownership of Australians natural assets and people assets and the critical attributes of WMC, to participate and share the "in depth" experiences to capture markets and trade in global markets for Australians, not for global predators, are lost forever.

Ionics Ltd of USA, a world leader in water technology, a foundation Australian company, ignored by Australia, never supported by the media or governments is now a major contributor in water technologies for the Middle East, but not for Australians, but for USA. This is ironical when Australia was recognised by the earliest settlers that a major problem for Australia was water. Foxtel does not mention the special and critical attributes of Australians and their major industrial activities, on any of their forty or sixty TV channels.

The sale of assets to overseas buyers does help to offset our serious trade deficits, short term. But it creates more serious problems for Australia long term. But worse Australia is not replacing the major and rapid losses of Australian major industries. There is little sign of any future wealth development activities for long-term industrial opportunities. The culture of Australia is to sell for today's capital gains. Institutional exploiters and private monopolists are more politically influential and powerful than are the unprotected public for their long term social concerns and values for Australians. Australia is slowly losing control and management of healthy capitalistic multi competitive markets. The markets are being monopolized. This is a most disturbing decline in democratic principles of human rights and fair market protection.

The American "Discovery channel" and associated educational productions were once the worlds best educational channels. This was the ambition of their founder, Ted Turner who had real concerns re the misuse of television by networks. Now monopolized by a once Australian media operator these channels are no longer the producers of new educational programs but instead, News Ltd's objective is to constrain access to consumer markets from those that could offer better quality and value. The BBC supported by the UK government has at last been able to diversify television from the previous News Ltd monopoly of UK television. The BBC now produces far more educational programs and in depth documentaries.

Foxtel monopolizes almost totally, the Telstra and Singtel telecommunication public network cables for mainly the cartel's control on source and distribution. Alternative suppliers are locked out. News Ltd, now in USA is a distributor of entertainment values, not intellectual values, reversing the work of Ted Turner.

The relative wealth and health of Australia depends on the intelligence available for and from the citizens of Australia to compete and excel in local and world markets for Australians. Directors of companies or media reporters are not always up to date with the understanding of the provision of people talents and skills for future markets. **To promote trade schools for more plumbers and more carpenters and more motor mechanics is still missing the bus. We want research and education in advanced technologies to develop the skills for the advanced and sophisticated engineering, the worlds value markets**.

Governments could send missions in teams of ten or twenty students to study for two or three years within the best of worlds industries and

research laboratories. They could return to publicly advise how today's problems could be resolved for the next generation.

Strict discipline with planning, and focussed education is far more effective for an efficient economy than possible by "market forces" and "self regulation" that leave markets wide open to temptations from exploiters and monopolists. When Australian companies excel world's best practices, investors will flow into Australia like bees to a honey pot.

There is little promoted to Australians why and how Australians could or should develop and invest in Australian industries. Little of their activities and long term developments are promoted to the public or even in parliament. The promotion by economists of financial issues is front stage. As fast as Australians, over many years of intensive effort, develop the talents, the skills and the experiences, the means for future wealth, Australian industrial values are manipulated by media and financial institutions for exploitation of today's capital gains.

The original intention of the super funds was to invest in Australian industry. The growth in the economy is at risk while Australia sells assets to be controlled by global operators, not Australians. Today's sales will offset debt but Australians are losing the foundations for further industrial expansion. The recent promotion by institutions that Australians should have more opportunity to invest in overseas markets is good for institutions and investors with money and overseas companies wanting investors. For average Australians whose net wealth and social lifestyles are not improving relative to international nations the overseas new owners are becoming Australian's more efficient competitors in international markets.

Australia is not using advanced technologies to add value to our natural resources. Industrialists' evaluations for future commercial opportunities are based on science, technology and engineering and then on economists' evaluations of the opportunities for market support and entry. China is now a world example of this approach and once with input from Australia. USA is still "number one" in % of world technology markets but now China is "number one" in % growth, an opportunity Australia had over a decade ago in telecommunications as one example, but due to media interference, was aborted.

The purpose of a digital telecommunications infrastructure operating to international standards is to provide one efficient automated electronic transport system, to be utilized by many thousand of multi competitive service operators, distributors, and retailers and by all consumers. Moreover, I will show that a digital telecommunication infrastructure is a means of supplying "products", in electronic "packages" and "containers" between markets and between private individuals.

Roadways, railways, seaways and airways are essential carriageways for the movement of physical goods, services, people and physical communications. They are open to all users. They are strictly controlled and democratically regulated by governments. Their efficiency depends

on total involvement of research, engineering, complimentary trade and university skill programs, and relevant local communities, industries, enterprises, and government. Programs involve international industrialists and standards.

Well-prepared long-term plans are effectively managed for efficient implementation and operation, and for future expansion and developments.[vii] The primary objective is to service and support an expanding economy to service open multi competitive markets, to maintain fair trade for all and to service the social needs for all communities.

These capital-intensive infrastructures are strictly regulated and policed for safety and security. They consist of public owned properties and controlled public spaces that are available for other equally essential public infrastructures and services such as water, energy and telecommunications sewage and waste, which also require government controls and regulations and sophisticated engineering.

Infrastructure developments are more efficient when planning is complimentary. Underground telecommunication cables can be installed at the same time as underground energy supplies. Water drain off from roads can be used as second grade water for urban needs. Road and rail are infrastructures that will also be available to provide the means for new infrastructures such as automation of physical transport systems, "The intelligent Highway". Otherwise chaos and disorder would prevail!

A digital telecommunications system is a transport system for invisible traffic for industry, enterprises, public and private information and communication services. It can already be fully automated. It deserves equal government respect and attention for public services, public safety and public security.

Telstra should not be an infrastructure, an institution, to finance a media cartel and the media cartel's commercial interests and then compete with its own customers using imported engineering to do so. It should not be an institution, financed by the public to be used to monopolize subscription services for a media cartel. It is a public telecommunications institution, and if privatized is a powerful tool to control markets and political opinions via television for one media cartel's objectives.[viii]

No other country in the world is considering selling public telecommunications infrastructure so that a private company can monopolize the media market. No country in the world is even permitting a private or public telecommunications company to be used to monopolize subscription television. No private cable company in the world would allow a customer to monopolize his cable business.

Industry policies for technology, for telecommunications and for media diversification are out of control. Post sale, Telstra is dangerously out of

control. Australia will be a technology island, alone in the world with only proprietary technology, driven by the media cartel.

This paper will explain that if Telstra[ix] were sold, why News Ltd and its associated cartel partners, not government, would remain in permanent control of communications, media and relevant technologies and their related policies in Australia. I will explain why this is a most serious, dangerous and undemocratic disservice to the rights of Australian enterprises and individuals. It must be challenged.

Human rights are a responsibility of Government as a whole. It is undemocratic and completely unfair to one Member of Parliament and to the public that one minister be given the responsibility for such a socially and technically complex task as explained below.

The World Bank warns with privatisation of infrastructures, of the near irreversible dangers:

". … *the potential abuse of market power in services that effect many consumers creates pressures for governments to intervene through intensive regulations on private suppliers or through provision by the public sector."*

In addressing the constraints to the economy and the investment climate, the World Trade Report includes:

"Improving domestic regulations:

Too often, governments pursue regulatory approaches that fail to achieve the intended social objectives because of wide spread informality, yet harm the investment climate by imposing unnecessary costs and delays, inviting corruption, increasing uncertainty and risk and creating unjustified barriers to competition.

The key is to strike a better balance between market failures and government failures, ensuring that approaches are adapted to local conditions and by enhancing transparency. Successful reforms remove unjustified burdens and streamline procedures. They reduce regulatory uncertainty and risk by curbing discretion and expanding consultation. And they remove unjustifiable barriers to competition by reducing regulatory barriers to entry and exit and by tackling anticompetitive behavior by firms"

- World development report 2005-

The Hilmer report introduced "deregulation", the competitive concepts of "market forces" and "privatisation of infrastructures" to improve efficiencies in markets, but instead, markets efficiencies are being reduced or even destroyed by monopolistic motives arising in particular by "self-regulation". The missing gap is that the "economic rationalization" ideals of the Hilmer studies omitted three major studies. Are infrastructures in parallel and in competition more efficient? How do industries contribute to the efficiency of markets? Are commercial

enterprises and financial institutions focussed on the best outcome and fluid capital markets for consumers who are compulsory investors?

The government has not provided the public with comparative studies and relative evaluations of how the Australian telecommunications environment related to the claimed overseas examples. Consequently as explained below, the essential government supportive processes to ensure a balance between "industry" and "commerce" have been removed from Australian markets. This is now a major gap in policies that have permitted irregular and destructive social and economic behaviour to increasingly develop. I will use Telstra to detail these gaps and disclose a most serious problem.

"Efficient and well priced telecommunications services have a positive impact on the volume of trade and effect the pattern of international specialization. A good telecommunications system is crucial for cross-border trade in services and in just-in-time delivery of goods. State owned monopolies in some countries, lack the financial and technical resources to upgrade infrastructure and services to meet the requirements of businesses and consumers. Reform will generally involve at least some privatisation as well as trade liberalization in order to ensure adequate services. Governments still have a regulatory role in guarding against anti-competitive practices affecting access to networks and ensuring universal service."

- *World Trade report 2004*

This document explains how the media cartel involvement with Telstra is the cause of Australia's telecommunications and relevant technologies, for the digital transition, to be aborted. Australia has lost over a decade of opportunities for this major efficiency and technology reform package. Liberalization of trade disciplines, particularly with communications, has resulted in market behaviour that has limited competitors access to consumers and increased the price and choice constraints on consumers. It has put constraints on trade liberalization.

3 Cross polarization in the boardroom

Below is another example to show that the Hilmer report proposals of "self regulation" and "market forces" stimulate these defects in markets other than just with telecommunications.

The same vertical market manipulation occurs in a slightly different way but just as damaging to the efficiency and wealth distribution of the economy of communities, long term, when governments allow private privileges and preferential build with town planning for major shopping centres schemes and car parks. Deregulation permit Westfield like shopping centres to apply unreasonable demands and abusive trade practices that were illegal prior to shopping centres, but now by "self regulations" are imposed.

This is another device that removes wealth from communities and places it under the control of monopolists. These are disincentive schemes for the majority of citizens. Government claims that nationally, duopolies exist in retail, but in actual fact for local communities they are monopolies. The privately owned major shopping centres are too widely separated to be local competitors and furthermore duopolies seldom satisfy price reduction expectations by competition.

The "economic rationalization" concept does not take into account that the small independent retailers made a commitment with entrepreneurial risk, courage and effort to establish the original "town centre". They inaugurated the distribution channels for markets to expand and for industries and enterprises and communities to develop. They no longer have assistance from a government or financial institution for the people to engineer and develop efficient local community programs that include energy, housing, water, goods flows and social values etc. No longer are local communities involved and participate in the modernization, refinancing and re engineering of a new shopping centre and a new community centre by and for their local communities.

Instead the shopkeepers are forced to leave the old now almost valueless premises and have little option than to put their businesses under new management. New complex "self-regulations" rules now apply and fair trade practice rules no longer apply. New complex accounting add to the new burdens. No longer have shopkeepers a business of value as once founded, owned and controlled, to realize a lifetime self-earned asset. The assets have now been monopolized.

These once were easy shopping for the elderly, the handicapped, and the families without transport. Now under new rules, huge storage and energy hungry coolers are needed in homes, as travel distances are now much longer for many. Some have no cars to claim fuel discounts or may not need petrol today so must forfeit their "price bundling scheme" discount. Petrol stations are no longer service stations. Monopolists do not want to be involved in such complexities. Remote monopolistic predators exploit the local economy with their privileged "self regulation" that now exclude consumers.

Shop keepers must not only pay rent but must pay a proportion of their turnover, plus move locations when told, plus contribute to advertising as per instructions, plus pay for upgrades when demanded, etc, hardly democratic. The Chairman, Professor Fred Hilmer of Fairfax is unlikely to comment on these issues or expand to the public these undemocratic trends while also on the board of Westfield with Mr Lowy. Another problem with cross board / media representation and market forces policies. Shopping centres and housing for new communities should be a total integrated program for optimizing efficiencies for local communities, not consumer commodities for exploitation.

But the trend does not stop there. With reduced channels of distribution, farmers and suppliers have lost the diversification of distribution channels into multi competitive markets so that suppliers' incomes are

dependent on almost one or two sole customers. Price pressure is no longer at the top of the vertically controlled market but now on the supplier or producer at the bottom. A fisherman receives 50c per kilo of fish that sells in Woolworth's for over $19. Agricultural and industrial product creators now with little chance of negotiating fair trade opportunities and alternative distribution channels, in the longer term, become unsustainable. The dairy industry is at last beginning to counter these abusive trade practices by cooperative processing and marketing. Even then, the media challenges their recovery as anti competitive.

Telstra, shopping centres and mining industries are examples of neglect with public policies as outcomes of the Hilmer report leading to monopolist exploitation of consumer markets and market capitalization. This is not capitalism working efficiently in multi competitive markets, but monopolists working efficiently to constrain competition and constrain long term social values of communities for financial asset exploitation opportunities only available to a few.

4 The subtle privileges.

Market capitalization is not necessarily a result of company profit. It is the market perceived opinion of the capital worth. Australian accounting standards and the constraints on public information provide market brokers a special privilege in Australian markets to raise cash in ways that would be considered as not legal in most other nations accounting standards and trade practices.

In the years prior to deregulation of the stock exchange, it was easy for any one to purchase, at little cost, directly from the Stock Exchange very detailed financial history and reports for any of their listed companies. Information as to shares issued at par, part or fully paid, directors, and their cross interest in other companies, etc. Newspapers had to provide detailed reports re book value, paid value, par value etc. of shares. Since deregulation, by "self regulation" this pertinent information to the public became an option, not a requirement. Now for about two years it is not even available unless by very expensive means. This information is now a privilege for financial institutions, it is not provided freely to the public. The deregulation policies provide special privileges for institutions and the media who have privileged access to the information and privileged control and distribution for the "one way" information flows to the public. The public has little or no means to question or respond.

Some countries mandate that a media company must provide equal opportunity to a response to public arguments. It is no longer possible to have articles published in support of engineering and technology or financial data that counter, from industry experience, the superficial and shallow claims of articles purchased by newspaper proprietors from economists. Even free articles from industrialists are not accepted for publication or response. In Australia public opinions are one way only

and this is almost a media duopoly, and if cartels are taken into account, virtually a one-cartel monopoly on public opinion and attitudes.

Today, investors or potential investors must purchase the critical financial information from distributors of stock exchange information, which now is too often, pre filtered. The more detailed the information the more expensive it becomes so potential investors must sometimes pay a high price to find one small element of critical information. Current annual reports and prospectuses are available but only after extensive time taken to find, and very expensive process to collect. This once readily available information is now way beyond the free time or free cash of an average worker or family, who has, by regulations 9% of his income allocated to some one else's responsibility. Even to use the funds to pay off his home is not an option. He has to borrow from institutions that have access to these super funds.

The policies work well for those privileged to regulate themselves. "Self regulations" and "market forces" exclude consumers and the young families in Australia.

The public has little option but to rely on market capitalization value of shares with little explained background of why and how their value relates to risks. Opportunities are well expressed but often not well found (sometimes not found at all). Market capitalization is not company values. It is markets perceived value of a company. Knowledge kept in confidence or promoted to inflate or depress market capitalization is not inside trading. Nor are confidential arrangements across board membership of companies, the Stock Exchange or the Reserve Bank. But such cross influences can be extremely manipulative in a far more serious way than inside trading.

The Australian accounting standards permit an Australian Company to raise cash or equity against the Market Capitalization value of the Company, which can be very much higher than book value or even the only value. The more "Market Forces" a company has to promote its expected future values, the more chances to increase its market capitalization, which can be used by well rewarded power brokers to raise cash for the company. When this market capitalization is high-risk future expectations, the markets are very dependent on the future values as prophesied by the Chairman or board being realised.

Markets rely on independent professional media analysis to verify the long-term risks and rewards, or on the reputation of the history of the directors to have operated most satisfactorily profitable businesses.

When media markets have a wide diversity of independent sources of information and well-balanced independent market participation, the public will be provided with completely independent evaluations. Generally this is the only means to protect consumers and retirement funds from exploitation. Australian markets do not have this diversity. Cross media involvement and participation from newspapers, radio, television and magazines and many other private companies, is

completely an inbred / cross breed Australian culture. To mention a few of the more obvious, the Chairman of Fairfax is on the board of Westfield. PBL is with News Ltd as shareholders in Foxtel. Mr Lowy of Westfield is on the board of the Reserve Bank. Mr McGauchie, the chairman of Telstra, is on the board of the Reserve Bank. It is unreasonable and unfair to expect government to have balanced policies between "industry" and "commerce" while it has to also balance policies with those already with more public authority than government.

Deregulation has permitted this intensive cross proliferation of inside shared economic knowledge and opportunity and participation by astute and influential operators by eliminating any alternative public argument.

The WTO and World Banks promote international accounting standards for industry and commerce in all markets for fairness in world trade. Australia media regularly promote reasons why this is "unsatisfactory and unfair" to Australian institutions.

News Ltd with substantial market power and most inventive schemes and astute management has used this Australian opportunity.[x] Equity has been raised against current Australian revaluation to venture into risky domains as was used to monopolize PayTV in UK, and the raising of equity to buy six TV stations in USA. These are opportunities in Australia's accounting standards of promoting the Chairman's opinion as the future expected value already capitalized in the current balance sheet, where otherwise cash could not be borrowed. Most companies have no means to do this. They are at risk as to what the media opinion is of their company.

Other devices are the re valuation of " brand names" as valued internally by the Board to increase the capitalization (market perceived value) of the company. These are ways used to increase cash for the company that can directly or indirectly trade with its own shares.

Economists have proposed and promoted that patent and intellectual property should be capitalized. As any industrialist knows, the value of any patent or intellectual property cannot be known until market performance realizes a profit from the patent or intellectual property[xi]. However, many economists promote that these concepts should permit revaluation as internally valued by the company. These are contrived unrealized risks that economist want to be labeled as <u>current</u> capital. The media regularly promote such supporting economists' points of view. The reasons to the contrary are left to the uninformed investors to find and study alone. Other more complex "engineering" for "inventing" money are beyond the scope of this document.[xii] Without far more diversification of media, it is unlikely that the uninformed investor or owner of superannuation fund will ever know the real risks and exposures of his hard-earned money.

When markets have no way of competitive evaluation investors are at risk. Media have this very special privilege. When there is no independent competitive evaluation of their stated market objectives and

expectations without exposing markets risks, markets are dangerously at risk. Media companies tend to exploit their own aligned promotion (the recent media swap between News Ltd and Fairfax Ltd in New Zealand for example) but be severely critical or not even mention attributes of other investment opportunities, unless of course to alert the market to a takeover bid.

"BHP stuns with record profit" FR headlines, Page 1 17th Feb 2005. BHP with a PER of 23 and a yield of 1.4% is hardly enough income for super fund retirees to have sufficient income to buy the value added products imported from China! This is an example of the many irrational media / institutions misleading misinformation to the unwary and uninformed public.

Another example as used by OneTel is to issue 1.4 Billion 20-cent shares at par, not paid, but by using their privileged market forces raised these shares to very substantial market value. OneTel[xiii] traded these shares to raise cash, which later allowed a buy back of $8.50 for one unpaid share and then a 1 for 9 share consolidations. The $2 par shares were trading at millions per day up to a peak of about $13. This is quite legal.

The average Australian is becoming more and more constrained re financial flexibility while institutions and board rooms have the new flexibility of "self regulations" as to how the new cash supply is deployed and who is rewarded. This is hardly a balanced "industry" and "commerce" for the people.

Government should manage as a prime responsibility the monitoring of all health, not only of the public but also of industry and commerce, and use public research foundations to do so for the consumer, openly and publicly. A better and more efficient solution is for this professional unit to help to remove the "viruses and bugs" in all industry and commerce, and not just destroy the one patient exposed while others remain unexposed. With "self regulations" the health of industry and commerce remains unmonitored, or if monitored uncorrected, and therefore at high risk, and too often at very high risk to investors and retirees.

Charles Dickens provided the correct advice about responsible accounting for profit and loss in "Pickwick Papers".

The Australian Stock Exchange, easier than ever with modern technology could make all information re listed companies freely available to anyone as and when needed. Australian Statistics is another example of the increasing difficulties to obtain essential data. Trade practice regulations already cover this issue but is not applied. Government could mandate that the financial data from the stock exchange and statistical data from government is available equally to all, not just to the financially privileged.

It is undemocratic to have constraints on the information for the provider of funds but privileged access to financial information for the ones deploying or exploiting these funds.

5 Energy

It has to be clear to everyone that it makes no sense to build two or more energy distribution networks for electricity and gas so that government can privatize infrastructures and force down prices by competition. It does not make sense to build three more power stations to supply a city when already two are below peak output.

It makes no sense to receive a knock on the door from a competitive energy supplier who's incentive for consumers to change is a lower price and then six months later receive a price increase above the original supplier. Nothing changes in cables or brightness of electric lamps. When the gas pipe leaks and the homeowner calls for corrective action, "we are no longer your supplier of gas, you changed your electrical supply company"! Waste and confusion prevail.

A simple study of energy problems reveals only too well that nuclear energy is one of the world's future salvation.[xiv]. Australia no longer has any commercial media that expounds daily, the technology and engineering values and potential added values in international markets of WMC and the peoples' efforts and skills that founded the company.

When a private company is given permission to build one nuclear power plant that will provide the total city with "clean" electric power at one third less the current price, all existing private investments in wasteful overbuild of power generation plants must financially fail.

The Financial review arrogantly claims: "*The world has to have the debate on the safety and safeguards and how nuclear energy can be developed"* (– FR 14th Feb Page 60 -). This world debate was over two decades ago. Australia has been off the world stage where it should and could have been front stage. It is Australian culture that must be debated.

The international industrialists within industry consortiums plan for future markets 10 to 30 years ahead. Already efficiency is built in to their programs otherwise new technologies would not get to market. Industrialists use science, technology and engineering and then, with commercial realizable products and systems, interface with government research and engineering foundations for market entry. Companies employ economists to evaluate the financial opportunities in markets.

Unfortunately, post Second World War, innovative commerce policies, such as tariffs and standards specific to Australia were steadily introduced to protect industry from international competition. Australia became inefficient relative to international industrial efforts.

Economic correction was hard and swift for many industries. The economic solution was to remove tariffs over night. Factories closed within months. The high unemployment destabilized the trade union

movement. This was little help to the many industrialists who had also to close factories. More capital intensive industries such as the motor industry negotiated a long-term reduction of tariffs. The problem remained. Australia was distracted from the essential need for public foundations for long-term stability and wealth. Other forces were already at work.

So the violent swings and roundabouts that develop from short term evaluations by "economic rationalization" severely handicaps industry and agricultural objectives. Industry needs 10 – 20 years to develop and then 20 – 30 year programs to profit from markets, because this is the nature of sophisticated technologies for industry, not the nature of economics that can today decide to sell Australia to the highest bidder today. Australia can and should be the wealthiest per capita in the world.

6 A contrived scheme on Telstra, from experience of self regulations

In the UK, in the late 80's News Ltd gained by an astute but contrived means, UK government's permission to control UK's first PayTV operation. Prior to News Ltd involvement the PayTV was a consortium. News Ltd adopted a proprietary device to close the system and vertically control and constrain the supply and distribution channels for subscription TV. The UK regulatory bodies had no experience in vertically controlled television and monopolized markets so, like Australian regulators, did not understand the proprietary system or how or where to regulate this practice.

This was a devastating blow to the UK television industrialists and independent program suppliers who now had no direct access to their consumer markets. It was much later that some members of the UK government began to understand its abusive nature and, by direct government action, to allow the BBC to broadcast up to 30 quality and educational programs, free to air, using the new international digital standards to do so.

In Australia the problem is far more serious than the UK experience, as the government (the people) financed Telstra's new national cable system for telecommunications. Telstra and Singtel are not one of the thousands of privately owned cable companies just for analogue TV as we see in USA or Taiwan. These are not PayTV operations as was the case in the UK. This is a Telstra / Singtel interdependent national and international public telecommunications network, both with majority shareholdings by governments.

Telstra modified the Telecom Australia cable plan by installing a News Ltd proprietary system to vertically control the television subscription markets in Australia. The system was installed on the Telstra network to ensure no competitor could use the Telstra infrastructure for television without an agreement with News Ltd, via Foxtel. Governments, the Ministers, government regulators, the board of Telstra, the management of Telstra, accepted this! It should be challenged as to who gave

permission for this action. This is anti trade liberalization of the worst kind.

Consumer protection and market protection does not exist for telecommunications access and subscription TV markets in Australia. The media cartel uses Telstra to control government telecommunications and media policies. If Telstra is sold it will be a private company using devices that for any other company are illegal. Companies on the Stock Exchange register should be forced to inform the public and the Stock Exchange of these illegal practices and report when they are removed.

The "economic rationalists" advice to government was that Telstra should be privatized to increase competition. The media repeatedly echo this without question.[xv] By repetition, media have convinced markets and government that the set top box is a subscription TV necessity. They do not explain that it is a contrived digital television receiver, a dedicated Foxtel digital television receiver that purposely will not work with Free to Air services. It is contrived not to work with any competitive services. With digital, the proprietor of the scheme is manipulating the industry to his advantage. News Ltd has convinced the government, the consumers and retailers that it is a "set top box" essential for PayTV, as used all over the world!

No one else in the world has a national public optical cable for digital, television, telecommunications and interactive multimedia. Digital television does not require a separate and unique box for subscription services.

The "Set Top Box" is "**THE DIGITAL TELEVISION RECEIVER"**, without the display or speakers. This is not the simple box in front of an analogue TV that controlled the renting of a privately owned co-axial cable in front of an analogue TV. In Australia, this is a "**DIGITAL TELEVISION RECEIVER" modified for the media cartels legally and financially privileged control of the publicly financed national optical fibre cable for telecommunications, television and interactive multi media.**

The Telstra telecommunications system for television has been modified so that a consumer must have this box to receive subscription television. This contrived arrangement is an exclusive privilege by successive governments to the media cartel, so the media cartel can lock out all public access to all competitors and to lock out all competitors access to the public via any telecommunications infrastructures without special submissive arrangements. This is totally opposite to trade liberalization.

This is an abusive market mal practice to remove from the markets, choice, flexible and far more efficient options and access to information.[xvi] Telstra and the media cartel are totally undisciplined. Once Telstra is sold, worse practices will follow.

No longer is Telstra in support of international standards essential to complete the digital transition program for the next generation. Once Telstra is sold, there is no way for Australia to have an opportunity to share with international markets the revolutionary, more flexible and far more efficient telecommunications, television and interactive multi media technologies. The infrastructure has been modified so that it will only support the media cartel's marketing and financial objectives, no matter who is the next owner. Singtel remain legally unprotected. Chaos and disorder prevail!

The selling of Telstra without exposing these severe constraints and market abusive practices to the public, from the government of Australia, must be the worst sort of corporate governance behaviour.

The World Trade Organization comments that: "Governments have a responsibility to the public to ensure that private agents cannot frustrate market opportunities by rendering markets incontestable" - World Trade report 2004 -

The Australian culture must change. No longer is the objective to employ the compulsory superannuation fund to the benefit of preserving and further developments of industry growth for Australians to profit in the future from local and international trade. We seem to have a culture where "market forces" are permitted to use the "cash flow" from capitalization of developing industries to realize today's capital gains to profit for those in position of exploitation.

In turn, these capital gains together with super funds are now loaned to the public in order to provide the cash flow for the growth economy and housing loans. "Economic rationalization" is up side down. It is irrational. The funds would be best employed to ensure WMC remains an Australian owned company with Australian advanced technologies.

The short-term instability that is caused by the continuing changes in economic policies is destroying the essential foundations for the long-term wealth creation objectives. Industry requires twenty to forty years of stable legislative and foundation supports. Turning support taps on and off completely constrains Australians' international competitiveness.

Australian assets, now politically neglected, become cheap targets from the exploiters who have a much better understanding of industry values than Australian "economic rationalists" who claim responsibility for Australian policies. "Industry" and "commerce" are way out of balance.

These irrational economic policies of "self regulation" and "market forces" need to be replaced by social policies and disciplines that lead to the sophisticated intelligence in engineering and technologies. These are the values that, with practical opportunities for experiences, create wealth and creative lifestyle for the future generations. These are the catalysts for the growth of wealth in all leading nations throughout history. It is a public culture.

Australia has forgotten how and why such supporting foundations are so critical to the long-term economy. The media of Australia no longer gives time or space as to why talent and opportunity should be protected from private monopolist or global exploitation. Instead they support and promote the culture of exploitation. These trends are sabotaging the young people of Australia's future.

A detailed description of the attributes and the major efficiency opportunities from a digital transition program, follow with more details of the contrived methods, market manipulation and market power used to gain private monopolies in markets.

7 A culture change

Australia has an opportunity to provide consumer markets with a major breakthrough in the dramatically more efficient distribution of information.

The short-term objective therefore is to remove the very privileged control and filtering of information to the public, and to provide open and transparent opportunities to access information.

Open access to multi media and education with a new focus on industry, agriculture, engineering and the arts, the innovations for long term wealth creation and efficient markets. This is a change in culture. Telstra has had the means to do this for over a decade. It was blocked. Why it has not been classed as illegal is difficult to comprehend. The regulations make it clear.[xvii]

How News Ltd monopolized Telstra is only understood by in-depth mining of Hansard. These are the "market forces" that over powered democratic processes. This has not been understood by all members of parliament who have no way to test the conformance of Telstra. Government has no way of evaluating the technical devices used to monopolize the media subscription markets and block the cartel's competitor's access to the telecommunications networks and consumer markets.

Problem solving and improvement programs follow a simple process. Define the problem, find the causes, study and analyze solutions and implement the repairs in priority order.

With Telstra as the example, this document defines the problems, describes the causes and offers a repair solution that will also revolutionize Australia's telecommunications. Improvement process should be continuous, and this should be the ongoing task of the commission proposed in the document. All government discussions concerning public property and public policies should be made public. Transparency of policy development is automatic when a commission is responsible to the whole of parliament, as is the organization for the FCC re telecommunications and television via satellite cable and terrestrial

means. This is an essential change for a more democratic outcome for public communications.

A reform program will remove the monopolistic constraints and permit competition in media markets, removing the concentration of media power on government policies and on consumer markets in Australia, the power these contrived devices installed on Telstra are used to protect. The sale of Telstra is the media cartel's guarantee for the status quo. [xviii]

On completion of the digital transition program, digital telecommunications, digital television and digital inter active multimedia services, the one complete digital package for Australians, will excel world's best practices, will be open to all and will efficiently service multi competitive horizontal markets.

…*"once knowledge is discovered, its use by some does not lead to a reduction in the ability of others to use it for a similar or different purpose"*…

…*"The need for public policy to encourage knowledge creation and diffusion arises because left on their own, firms will tend to under invest in research and development(R&D). This is because they are not able to appropriate the benefits that spill over to other firms from their R&D efforts. Technology spillover can have both national and international dimensions. Public intervention aimed at promoting the transfer and diffusion of technology might include public funding of basic research, whether in government institutions or Universities, patent protection laws and R&D tax credits"*.

- WTO 2004 report

It will be several decades before any other nation has an infrastructure that includes a national optical cable with attributes to match Australia. This reform program will re establish Australia to participate in the world's growth markets of technologies, the world's most expanding economy.[xix]

All media producers have the right to distribute their specific media products in their specific market, unfiltered by media cartels. The people also have the right for protection from abusive practices and the right of access to pluralism of information and right of open access to telecommunications, television and multi media networks. This must be put into balance. The legislation is really not the problem. The problem is enforcement. Government needs help. Telstra sold is the media cartel's win and an intolerable loss for the abused Australians.

8 The new directions in USA and international industry directives

The FCC of USA has issued a code of practice for Digital television to be "plug-and-play" for free and subscription services via terrestrial and cable networks anywhere in USA.[xx] These standardized digital receivers will be sold in retail outlets. The FCC explains "This is crucial towards

building products and developing services to help spur the digital transition". This was the initial policy, for Australia, the world's first major program, that has been blocked by Foxtel.

The media cartel's contrived scheme is the cause of the extremely slow take up of digital television in Australia. This aborted Australia's 1990's plan for digital transition. Last year, retailers in Australia sold about 1.4 million analogue television receivers, as many as ever per year, now an antique and obsolete industry except for Australia. Berlin, and most other German cities where digital started after Australia, no longer transmits PAL television.

Following a special study as a directive from the mayor, the city of Philadelphia has adopted a policy of one public network to remove the conflicts of interest and waste[xxi] by private radio networks in competition. Philadelphia will be the special example for USA to provide safety, security and new opportunities from the new digital radio systems for sophisticated education, personal experiences and competitive commercial opportunities not possible with parallel builds of privately competing infrastructures.

I attach here a news release from the ITU as follows:
"Press Report WTSA-04 [xxii]

PRESS REPORT ON THE WORLD TELECOMMUNICATION STANDARDIZATION ASSEMBLY: MAIN HIGHLIGHTS

New Study Group on next-generation networks

Next-generation networks represent the future evolution of current fixed and mobile networks. The fundamental difference between NGN and today's network is the switch from current 'circuit-switched' networks to 'packet-based' systems such as those using Internet Protocol (IP)[xxiii]. NGN is expected to give fixed line and mobile users completely seamless communication and to offer unrestricted access by users to different service providers in a multi-service, multi-protocol, multi-vendor environment. The need for global standards for NGN is therefore critical as most operators expect to move to an IP infrastructure."

This was the objective of Telecom Australia with the near $6 Billion upgrade build of a national optical fibre cable to the curb.

Students of "economic rationalization", now the advisors to government policies and programs, would not be expected to understand what this statement means. Nor would they know of the efforts of young engineers in the very long-term (ten to twenty years) of capital-intensive research. International electronic industrialists coordinate these long-term investment programs. These teams also involve government representation and public university research foundations as coordinated via supportive governments.

Australia was the first in the world to have a publicly financed national optical cable infrastructure for digital telecommunications, television and inter active multimedia services to the home. Already prepared for "packet based" switching on optical fibre backbone and optical fibre to the curb, this huge program was admired internationally.

It appears now, few outside the key media owners in Australia, understood Telecom Australia's engineering insight and sophistication of their long-term plan. The Australian media were the loudest critics that Telecom Australia was a monopoly that should be privatized. They had other objectives.[xxiv]

Spectacular efficiency gains are achievable, throughout the home, from neighbour to neighbour, from city to city, from nation to nation. Seamless and secure interchange from any operator to any person, home, farm, business, factory, automobile, boat, ship or aircraft for all public telecommunications, television and inter active multi media services are completely automatic.

Government administration and regulatory systems for electronic goods movements (electronic trade and commerce) will parallel the requirements for physical goods movements (physical trade and commerce).

Telstra revitalized could be a model of what are the essentials for government economic industrial and social policies. This program of reform will clearly define the requirements for future government policies and the removal of constraints arising from for other industrial objectives.

The Hilmer study turned trade policies up side down. The Hilmer report proposed liberal regulatory policies that have resulted in constrained competition and monopolization of markets. To reverse this abusive and democratically dangerous trend, Australia government must apply strict regulatory policies in order to revert to liberal trade and educational opportunities.

Australians must have far more freedom of access to education and professional knowledge, skills and experiences, especially the sophisticated skills that are leading the world most advanced technologies and markets. Many of the new technologies ignored by Australia are already critical to a socially acceptable and comfortable future lifestyle.

The reform proposal has been submitted to the Senate Standing Committee on Environment, Communications, Information Technology and the Arts.

I again outline the reform proposal here as I understand that the sale of Telstra is a responsibility of The Treasurer.

The Digital Multimedia system (Telephony, Television and Interactive Multi Media)

1. The Information The informer Processing into electronic format (The reverse for interactive communications)	2. The digital "product" Digitizing the information (Trans coding) Labeling, time stamping, addressing etc	3. Packaging Disassembly and packaging of products for storage or for deliveries to Customer / end user	4. Containers Processes for transmission (as appropriate) for satellite, cable, terrestrial carrier systems Labeling and addressing	5. Transport The carriers, satellite cable, terrestrial fixed and / or mobile network routing	6. Processes for reception from networks Reading Labels, time stamping etc (as appropriate re sorting into "product" files)	7. Unpacking Re-assembly of "products" for efficient storage or end user Reading Labels, time stamping etc	8. The product Decoding digital information into user intelligence. (The information.)	9. The Informed Use in real time (near real time) or by time shift use of the product. (The reverse for interactive communications)

A horizontal market. One, totally integrated open and seamless inter operable public infrastructure

Individuals or Groups - Personal - Consumer - Commercial - Technical - Financial - Health - Pleasure - Teacher - Manufacturer - Wholesaler - Retailers - Publishers - Producers - Security - Industrial & commercial controls - ETC	Homes Pedestrians Cars Trains Aircraft Offices Factories Clubs Schools Universities Banks governments Businesses Producers Stores Libraries Institutions Infrastructures -ETC	Distribution channels	The electromagnetic transport system for: Electronic data, files and programs in real-time or as time shift, free, subscription, single or bulk via: Satellite Cable Terrestrial -short medium and long haul of electronic goods and services The physical transport system for: Data, papers, books movies via, tape, discs, memory cards etc via: Road Rail Sea Air -short medium and long haul of physical goods and services	Distribution channels	Homes Pedestrians Cars Trains Aircraft Offices Factories Clubs Schools Universities Banks governments Businesses Producers Stores Libraries Institutions Infrastructures -ETC	Individuals or Groups - Personal - Consumer - Commercial - Technical - Financial - Health - Pleasure - Learner - Manufacturer - Wholesaler - Retailers - Publishers - Producers - Security - Industrial & commercial controls - ETC

Privatisation with conditional interfaces:

Media monopolists objectives – vertical control of electronic media markets by proprietary systems to lock out competitors

Competitive proprietary infrastructures

Competitive proprietary infrastructures

9 The reform proposal (See App IV)

The telecommunications public infrastructure is a strategic and most complex resource for a nation. It is an essential institution to service private and business requirements of individuals and to service local, national and international organizations. Like public roadways it is vital to the economy. Like public roadways, it is a natural monopoly. Therefore, it should not be outside the full control or public ownership of government. A remedy is to revert to a sound institution that is legally, financially, economically and socially responsible to the public and with the authority of government.[xxv]

Singtel[xxvi] incorrectly claimed a competitor of Telstra (for reasons explained later), is now the owner of Optus. The Australian government once owned Optus. As a consequence of the "economical rationalization" policies promoted to government, the "privatisation" of public infrastructures, "self regulation" and "market forces", we can read in Hansard the lobbying between, Foxtel, Telstra and Optus and how the consequences were costly to Optus.

Optus's request to share the new Telstra cable was denied. Optus was excluded from sharing the new Telstra cable infrastructure. Optus well understood the irrational economic consequences of parallel infrastructures to homes. The government insisted on its technically irrational capital-intensive policy, a program of $billions of complete waste, to have telecommunication infrastructure competitors. Optus was forced to build another capital-intensive cable system in parallel with Telstra[xxvii].

"Market forces" rather than government intervention allowed the opportunity for News Ltd to eventually gain exclusive use for television of the Telstra most modern telecommunications cable system, a publicly financed infrastructure. This is an extremely generous and irregular public gesture. Because of the exclusive cable use arrangements with News Ltd, Optus, with the built in Foxtel problem and economically in trouble following News Ltd involvement with Telstra policies, is now in foreign hands, about 60 percent owned by the government of Singapore. However its shares are traded on the Australian stock exchange.

A rather straightforward and inexpensive way to repair the vast damage and near two decades of delay to Australia's digital transition program and lost technology experiences is to set up a commission to regulate the industry. This will recover, in particular, government's control of the financial, legal and technical behaviour irregularities of Telstra. The top priority is for the commissions to be responsible to enforce regulatory control on Telstra and to restart the digital transition program.

Consideration could later be given to a merger of Telstra and Singtel under one regulatory commission responsible to the Australia / Singapore governments. Only Telstra has copper phone lines to almost every home and office. Only Singtel has satellites that cover Australia, New Zealand and Asia. Telstra has investments in international undersea cable routes. They both have telecommunications cables to the home that has been

monopolized for television by Foxtel, the media cartel. They both have mobile phone infrastructures that should have been built in series, not wastefully in parallel. The media promote as more irresponsible media propaganda, "mobile phones" as though it were the one and only sector of communications! Both Telstra and Singtel have trunking that can be efficiently merged. Further intensive capital build should be for network expansion in series, not in parallel. The irresponsible capital intensive waste of ugly infrastructures built in parallel should cease immediately.

The board of Singtel is focussed on the telecommunications business.

The board of Telstra is not supporting the international standardization of digital technologies for telecommunications, television and multi media. The board does not offer to the public or its shareholders any long-term plans for an efficient telecommunications infrastructure. It does not explain the details of the business commitments with Foxtel in its public reports. It has not disciplined the extreme waste of the Telstra capital. [xxviii]Telstra seems to be focussed on News Ltd's long term objectives using Telstra capital and the political "market forces" policies to finance and expand into more media associated businesses aligned with the media cartel objectives.

This gives the impression that Telstra is using "self regulations" and "market forces" as an opportunity to use public finance to prepare Telstra for the media cartel's post privatisation objectives. If this were not so, Telstra would be totally involved in the new technologies for Australian markets and assisting government to do so. Without the Hilmer report informalities, this would not have been possible.

As I observe the more recent organization of Telstra, Telstra employs a Lawyer responsible for the key technology sectors. For telecommunication the most critical factors are technologies.[xxix] Any nation's central reference for technologies is via the chief engineer of telecommunications. It seems strange that government leaves this role to a Lawyer. This is where digital transition should have been profoundly promoted. Surely this is blind man's bluff with government and with the ACCC.

A competent engineer, directed by government for Telstra to operate to international standards, as the electronic industry advised the Prime Minister at the time of the "nor Fish nor Fowl," comment, would have put Telstra on track to support the digital transition program. Later without organizational or technical change the fire sale is priority.

The proposed merging, as a later evaluation, of Singtel and Telstra consolidates the technical and public service opportunities into a solid and sound foundation. This removes conflicts, unnecessary legal costs, the unbelievable waste of capital in overbuild of infrastructures, and the completely unnecessary costs and severe constraints on Australian consumers. The Singtel board already includes Australians. If the two institutions are merged into one, the Singtel board and management could replace Telstra board and management. The merged groups will be an

efficient institution, a partnership between the Singapore government, the Australian government and the public, as users and as shareholders.

Singtel's natural plan would be to integrate into a standardized seamless infrastructure. This will also give Australia an opportunity to regain a stake in the emerging new satellite technologies that was lost from Australia with the collapse of Optus. Government should consider the idea that the merged Telstra / Singtel group also has participation from Macquarie Communications Infrastructure Group.[xxx] This company also manages the transmissions of public television spectrum (ABC and SBS) that is an essential element in the digital transition program. As explained later, this is a major component of digital transition.

The economists did not value the public asset of the ABC / SBS networks as being a strategic opportunity for the digital transition for the integration into the future digital telecommunications and television network. "Economic rationalist" evaluation was "today's value", an analogue / digital TV network and advised government accordingly. It was a public infrastructure to be privatized to create more competition. However, it is in much better care than Telstra.

This spectrum is still controlled for use by the ABA / ACA agency.[xxxi] The real opportunities for the digital transition must be studied in depth. A total re evaluation of all spectrum, including the terrestrial spectrum allocated to commercial TV, is an urgent and essential program before any further commitments that could relate to government's "long term" digital transition plan. (This concept is introduced later) Without the government's strict control and majority ownership of the Telstra, the government has lost such an opportunity. This will be a devastating loss for Australian consumers, Australian industrialists and Australian commercial enterprises for many decades to come.

The new telecommunications commission appointments could follow a process similar to the FCC with its own legal and technical departments directly responsible to the commission. This commission could be set up to also represent the commercial interests of all existing and potential operators for the free distribution or marketing of electronic goods and services and all users of public spectrum infrastructures for electronic carriageways. They would assist private businesses to evaluate the commercial opportunities of technical trials and developments, to steer the time frames for market entry, also for media opportunities but not media interference.

The government's commitment to set up the ABA / ACA agency, as a combined unit is a positive step. Their responsibilities would be to the new commission. The commission would involve Universities that must be urgently well equipped with the new components and testing systems that use the international standards and technologies. These are the engineers that must represent Australia in international forums concerning the technologies, planning, engineering and standards relating to satellite, cable, terrestrial (radio) and wire technologies and applications. Private

organizations, which have their own conflicting agenda, should not be representing the public as they do now. The many "Self Regulating" industry bodies, all in conflict with each other, have already contributed to confusion and financial waste.

The commission's department will then have direct experience, understanding and the insight to intelligently evaluate the local, national and international market realities and future directions of the technologies. They will understand the most efficient deployment of public spectrum for consumer markets and service operators as existed for Telecom Australia. They will provide assistance to government's long term plans and policies.

The new commission, an institution, a foundation, will operate with public and commercial participation, with a link to university centres of competence that understands and disciplines all the essential technologies and applications related to public market activities and a public reference. For instance the special characteristics and attributes of the modulation, coding and decoding systems for radio, for terrestrial, for cable, for satellite etc essential for seamless networking.

This knowledge includes the methods and standards to efficiently integrate all electronic "carriageways" and systems integration with physical carriageways and administration that enable government to also integrate their procedures. This department of the commission will collect and compile the data used for seamless operation, for automated management across the different systems, satellite cable, terrestrial etc.

Methods of subscription and payment for services can be used without Foxtel's inefficient proprietary system. A standardized system based on new digital technologies for open and transparent administration, account management and open access to telecommunications networks for all. Foxtel, without Telstra as a partner, could remain as one of the many service operators on the cable but over time, strictly operating to international standards as regulated for Australia.

This program could never be achieved with Telstra privatized with no means for government to control Telstra's devious legal, financial, technical and social misbehaviors and with multiples of private systems for public communications that continue today in Australia with so many "self regulations" conflicts and legal costs.

The ABA / ACA already have responsibility for the radio and television frequencies and channel planning and licensing of publicly utilised terrestrial spectrum (see below further concepts re spectrum planning). Their responsibilities should also include publicly deployed satellite and cable spectrum used to extend the public infrastructure for all automated services in open markets. Their responsibilities will include regulatory controls of the modulation and coding standards as they continue to progress to ensure transparent and seamless interchange from neighbour to neighbour, from city to city, from country to country.

This department would supply the public service information and coordinate the continuing developments of conformance testing facilities within the equipped Universities, to stem for instance, Telstra's and other telephony companies' proprietary practices that constrain consumer choice. This compliance testing to international standards is fundamental for inter-operable network components and consumer products that work without conflicts in multi competitive commercial and consumer markets. They would ensure that standards committees observe the "ITU WTSA-04" continually progressive objectives.

[xxxii]Regulatory standards and controls are essential for efficient, safe and secure logistics and infrastructures for physical transport and communication via road, rail, sea and air. Digital electronic transport and communication logistics and infrastructures via satellite, cable, and terrestrial carriageways demand equal attention from governments. The efficiency rewards for careful long term planning will be revolutionary. Market rewards for Australian developers in these technologies and application for emerging global markets could be significant. Efficient economies that more fairly distribute wealth and share values will replace the economical exploitation by private monopolists that is rapidly developing as a consequence of the more frequent deviant market behaviour arising from the Hilmer report.

The new Commission will report to Parliament, as a whole not to one Minister. Even the Prime Minister ignores electronic industrialist's input and refers it to the DCITA department, unread. Yet the media, especially the cartel, have no difficulty gaining the full attention of the Prime Minister at any time. It is totally unfair for Parliament to expect one representative to battle the media power in Australia. Ministers continually lose ground and resign before any change is realised. The industrial electronic engineering groups, the essential talents for change have no continuity of policies, so they are fading from sight. The future economy of Australia depends on the focussed and effective current sound research and engineering foundations.

The way out of this chaos is for a commission to be responsible to government. Government can then reclaim political authority over legal, technical and financial and social control of Telstra and in a similar way for all markets. The commission would be responsible to government for the digital transition program, reporting to all members of Parliament, as are the disciplinary systems in USA and the EEC council.

10 Realignment of spectrum and new planning of carriageways

The electromagnetic spectrum is a special gift from nature. It has been the science, engineering and commercial skills of many to provide society the many efficient benefits from this natural resource. It is undemocratic that any government permits the valuable natural assets of spectrum, as scientifically researched and technically developed for public

communications, to be exploited by monopolists. Like air and water, it is an asset to be shared by all, not to be politically contrived as a special financial and legal privilege for a few.

Telstra is the most essential element as it is the only one with telephone wire connections to almost all homes. Until every home or office is interconnected by cable, terrestrial or satellite, whoever controls the telephone, the copper pairs, controls the future access to all markets. As the media cartel know and as the government does not understand, with digital interactive systems, the telephone is the only universal return link for most inter active services.

Who controls this link, and with proprietary technologies, has the power to control or intercept all markets. This week News Ltd. is planning a conference of key units, world wide, to discuss how to do this more effectively for News Ltd. Telstra in private hands under the influence of a media cartel is a time bomb.

The telephone is a most critical link for all and everyone's inter active services. Carriageways from where to where, interchanges and netting etc requires re mapping including in the meantime, the plain old telephone.

The proposed program is a paradigm shift in the management and licensing of spectrum and the management and licensing of service operators. We have an opportunity and a government mandate that could remove the national monopolistic control on subscription media in Australia.

As with most electronics, production costs fall, approximately 15 - 25% per year, hence the reduction in mobile telephony of 5 – 6%. The difference is the inefficient infrastructure costs. The cost reductions are because more software is replacing more hardware. In Europe where long term planning of spectrum was done on a technically progressive "commercial realization" program, the market efficiency gains have been vastly superior to Australia.

Today it is affordable in the more economically progressive nations to connect every home directly with optical cable rather than copper wire telephones. Mobile phones couple together people on the move. Low cost computer systems, (packet switching) not copper-wire pair telephone exchanges, (circuit switching) manage the traffic seamlessly and automatically.

Terrestrial television channels and radio mobile phone infrastructures as carriageways that service the public to homes and offices will no longer commercially compete with new cable. However, terrestrial channels and radio spectrum have one especially important function. This function is to satisfy the needs and interests of people on the move or at remote locations without cable.

Terrestrial frequencies, the radio and TV channels have a special value. The value can be realized by changing government's focus. Cable is far more efficient for telephony, radio and television in built up areas. Terrestrial

spectrum can substitute for cable in remote areas. Terrestrial spectrum is more value to society when used for people on the move and for services required by commercial enterprises for people on the move, servicing physical transport infrastructures. The analogue TV channels, when released could be a substitute for cable where cable does not exist.

TV and radio analogue channels when released for digital can be evaluated for the potential for long distances communications than currently possible with mobile telephony. TV, radio, and mapping updates and traffic flow information, business information can all be discrete functions supplied in one channel that currently is used for analogue TV.

Each channel can be netted to provide 15 – 20 Mbts electronic carriageways for telecommunications, television and inter active multimedia services, to and from many remote areas. This will provide one of the solutions, the special need for equality of services for outback Australians, due to the unique geographical mapping of the more remote towns and homes. The media cartel control of Telstra and their media alliance control of terrestrial TV spectrum are blocking this special opportunity from using digital technologies and international standards.

The new policies and legislation should clearly define the complimentary parts of the system, the "carriage ways" with spectrum planning for satellite cable and terrestrial systems, the government mapping of the carriageways, with their specifications and attributes for digital services. This is the equivalent of road, rail and flight-path mapping. No longer is it efficient, in commercial and consumer markets, to define the use of spectrum to one service from one supplier.

The Telecom Australia plan, delayed now by near two decades, would have easily provided mobile (hand held devices) for the remote homes in Adelaide for immediate calls for help. But instead, lives have been lost.

The shallow words "Fix the problems in the bush" are irresponsible inactive actions that become propaganda to divert public away from the real understanding of the real issues. The Telstra board has no intention to solve these problems, problems that are not technically difficult or expensive. They use this to contrive special financial claims from government.[xxxiii]

The FCC regulates for such irresponsible activities as we see from Telstra with their neglect of remote services. They understand that this neglect of remote areas is the normal expectation from any privately owned monopoly. But in Australia, Telstra is not yet a privately owned monopoly but for too long, not disciplined by government authority.

The new digital technologies provide the options for free and subscription services and permit operators to service their customers as a one to one, one to a few, one to many and / or one to all. Priorities can be set. Programs can be compiled and scheduled in most flexible ways for local, regional and / or national audiences for quality service options for individuals, fixed

locations or mobile, or to small and large focussed groups, or small or large communities.

The markets will be fertile for entrepreneurial opportunities and a more democratic distribution of wealth. No longer will government allow massive amounts of capital to be wasted on inefficient parallel infrastructures. Any lesser economy could not have survived the many $Billions lost and the two decades of lost opportunity.

This renewal program is a paradigm shift and requires long term planning and regulatory changes by government to optimize the dramatic efficiency improvements available to our nation.

The very long term (6 – 8 years) change process from now to the future demands strong firm actions and disciplines from government as a whole and strong institutional support. It should be done with extreme care, testing of trials, careful commercial planning and technical skill training. Competition can be realised by multi competitive subcontracting to private companies as plans are put into actions. Many more will operate in a multi competitive horizontal market.

There is no economical, technical or commercial case to sell Telstra. [xxxiv] The profits from Telstra are about book value paid every three or four years. This is sufficient to finance most programs from the existing optical fibre cable to the curb to complete the optical fibre or HF cable to the home within the next decade.

For policy recommendations to government that Telstra be placed out of the control of the public and privatized even while already under the financial, technical and legal control of a media cartel is irrational, most irregular and irresponsible advice. The government should not have a "Financing Problem"[xxxv] as claimed by Telstra management if Telstra is not privatized.

However it is true that the uninformed consumers, retailers and commercial markets relying on a telecommunications and multi media infrastructure will have inefficient markets and major marketing conflicts. Private monopolistic constraints and abusive trade practices will occupy legal fraternities for decades to come, and will steadily worsen if Telstra is privatized.

Other funds for the government direction for deployment can be realised by the sale of unrelated businesses such as Telstra 50% participation in Foxtel, in advertising, in the marketing of DVD and music etc, these most unethical market conflicts by a telecommunications institution. Telstra is using public funds and legally privileged access to vertically monopolized markets and market information against private telecommunications customers who are locked out of markets by Telstra.

11 The digital telecommunications, television and multi media system

Australia was the first country, in the world to prepare for this total digital package. Even now, no other nation is so prepared. Australia is a world pioneer as were the Australian engineering groups that put it into first operation. No other nation has yet had this experience. So it is important for every one in Parliament to understand what the losses to Australia's future will be if government committed the sale of Telstra. The explanation of what this is, and how and why it was aborted follows.

Digital services include real-time services such as a phone conversation, or a time shift "product" such as an e-mail to be read later. It could be a subscription to a TV channel. All digital electronic programs and services can be identified, labeled, measured and counted as a trade value item, as digital electronic "products." Any "product" can be disassembled and many are compressed for efficient packing, into many sorted and labeled parts or packets, packed dispatched and reassembled for end user at the addressed destination, all automatically.

Chart on page 25, the simplified concept of a digital communications system involves nine process elements:

1. The information or instructions at source. This is where the information is compiled, spoken or produced etc. It varies from a phone call, to a business report, to a high definition movie production. Each is a digital production process for a discrete "product".

2. Each, component part, sound, image, text etc of a total "product", is digitally converted into identifiable "parts and relationships." The component parts of a "product" have relationships, the sound for a movie, the voice and pauses, the responses of a telephone conversation. These relationships are "written" on the digital electronic component parts of a "product" as time stamps and labels and can include source and the address of information for the "product". Products are filed with these relationships recorded.

This could be a digital file of a letter, a book, a movie, a radio or TV program, a phone call etc. Digitized as "products", they are filed in storage for the next process. Software engineers compile control programs, as applications to manage these processes. Software engineers compile software "engines" to manage the transportation of these "products".

3. "Products" are disassembled, the parts are identified, packed and labeled, (packets) and filed as "product" parts. This disassembly is to optimize the use of space (for many products, by electronic compression) in electronic transport containers.

4. With all the parts labeled, time stamped etc. for each discrete "product" these packets are stored in readiness for dispatch. Different parts of different products can be stored in different containers. The containers

are labeled and addressed. When ready, the containers will be loaded by the software "engine" on to the carrier used for transport to the recipient.

5. The transport system loads the containers on to the carriageway carriers that deliver the containers to the destination address or redistribution terminal. The electronic containers are specialized and standardized for optimum efficiency for satellite, cable or for terrestrial carriageways, as we do for air, sea, road or rail transport systems. At destination or at a point of redistribution, containers are unloaded and the "product" parts will be appropriately resorted at or for the specified address.

Proprietary systems are systems where proprietors purposely change these labels from international standards for the labeling systems, thus spoiling the efficiency of an integrated national and international seamless electronic logistic system. Standard systems read all labels from office or studio and throughout the total network to home appliances or office computer. Standard processes will not read proprietary labels. For a standard system to transport a proprietary labeled "product", it must have a special system as well, provided by the proprietary owner of their private label read and write method, the changes from the international standard system (code conversion).

Proprietary owner expects special consideration for the passing over of his secret and private way of labeling. The proprietor may insist that his components must be used and not expose his secret labeling system. Alternatively it is used to block competitors, as is the case with Telstra. It also stops governments from reading their "goods movement" information. The proprietor could, at any time, read any of the labels and addresses passing through the proprietor's system.

This inefficiency, or proprietary interference, is not tolerated in the physical world of goods movements. Internationally, the logistics for good movements, container and documentation standards etc, are very strictly disciplined, **the more strict the more efficient**.

In the electronic digital industry and commerce world, this is the digital divide, the objectives of monopolists to control markets by private control of the digital system by not supporting open standardization. Any others with a need to use the proprietary system are subservient to their private commercial arrangements and agreements of the proprietor.

Australia does not regulate or even endorse all the necessary standards. However, to ensure a completely seamless system post transition, regulations must be mandatory. There is no way that self-regulation could achieve these objectives while government promotes division of infrastructures for private use, a process that is destroying the opportunity for markets to be competitive. Private owners will use proprietary systems to defend their capital expensive purchased spectrum, their private monopoly from competition. This is economically irrational.

The standardization work must be strictly disciplined if efficiency gains are to be achieved. The current liberal regulatory ideas promoted by the Hilmer report have become a device to limit and constrain trade liberalization. This parallels the problems with industries, shopping centres, and new housing estates. Government could place these "too hard basket problems" under the socially responsible care of government authority via for instance university foundations with industrial and financial institutional participation. It is irrational to expect private companies to solve these most complex problems that now involve far more advanced technologies than even a few years ago, for the benefit of communities.

6. Now back to the standard system, at the destination reception point, the container is unpacked (for some products, electronic decompression).

7. The product parts unpacking process includes the filing of the parts into labeled storage bins. (Electronic files).

8. The parts are reassembled into the original discrete "products" for use. This can be done as the receiving device, a computer as a TV for instance, can read the labels and follow the instructions (or radio, or email etc.). The home systems as sold in all retail outlets, Free to air, DVDs, digital cameras, PC's etc are equipped to read international standard labels as internationally standardized. Foxtel boxes do not.

9. The products are put to use, the user hears, reads, views, replies, or the "products" are kept in store for future reference or use (time shift) for learning, entertainment, reference etc, all happening near the speed of light!

When international standards apply throughout the networks, these processes are seamless, inter operable, totally automatic and near the speed of light. This efficiency across many private infrastructures is not possible when each independent private network use proprietary schemes.

Digital systems use "identifiers" for each part (packet), (sound, image, text, movie, etc,) and for source addresses and destination addresses in a standardized way as we do for letters and packages via the Australia Post. Digital systems automatically write and read this information (headers) for local, national and international services throughout the total standardized network. This equates to the logistics management of a standardized physical goods movement and transport system. International standards detail how these work and where the information is required. These include identifications for local, regional, national interchange and international services, as we experience with e-mails.

Telstra purposefully neglects these essential standardization requirements on cable for television and interactive multi media to avoid conflict with Foxtel objectives. Logistics systems must be strictly standardized if telecommunication services are to be far more efficient for industry and commerce than current achievements. DVB.org / ETSI / ITU / EBU are the main international bodies.

With the input of the label data as standard, clever software developers build the "engines" to drive the systems, processes and administration as required for specific operators and / or suppliers and customers. Each independent software developer could market this intellectual property, the advanced technologies, as products to manage for other operators of standard systems for telecommunications in local, national and international multi competitive markets as they develop.

These are similar skills for the new technologies that provide robotic controls for transport systems, product assembly lines, food processing factories etc.

12 The electromagnetic spectrum for digital communications

This section is to convey in simplistic terms the technical issues that are pertinent to the reform program. These are issues that have been grossly distorted by those involved in exploiting "self regulations" and "market forces" at the severe detriment to efficient and fair trade in consumer markets.

Digital engineering that advances the methods and common standards to control and seamlessly manage spectrum for the different transport systems, cable, terrestrial, satellite etc. was a major step forward. Establishing a common set of rules that enabled the management of services throughout one integrated service infrastructure, (satellite, cable, terrestrial, personal computers, discs, tapes, and memory sticks and cards) for telecommunications, television and interactive multi media services to be automated, is the most critical major aspect of standardization. This is the multi competitive market. This is one most efficient infrastructure, but not for Australians. A media cartel has achieved other most undemocratic objectives.

Efficiency is optimized by the existence of one fully integrated telecommunications network consisting of satellite, cable and terrestrial interconnecting seamless carriageways all to international standards throughout. This is one complete package.

These inter operable characteristics of digital technologies are a special and essential attribute (as explained later) that has been purposely neglected in the Australian Standards committees, where the major influence and committee structures, due in particular to self regulation, are from media companies. Seamless automated systems depend on the inter operability between satellite, cable and terrestrial carriageways and domestic equipment.

When industrialists proposed via Standards Australia committees that this should be top priority, the media representation rejected the proposal. The purpose is to delay or abort the entry of competition. Standards for

seamless interchange are still not a study group within Standards Australia or as research and engineering in any university.

The distances that an electromagnetic radio frequency is useful for communications, varies with the frequencies and methods of propagation. This is one of the critical and natural characteristics of each frequency of the electromagnetic spectrum. Low frequencies travel long distances, several times around the world before exhausting useful energy. Most objects are transparent to the lower frequencies. Low frequencies will bend over mountains and travel down valleys. Low frequencies require very high amounts of energy to travel long distance. Components, by nature, must be large. It is only technically possible to group a few adjacent frequencies together as a carriageway so low frequencies are not useful for transporting commercial "products" with load volumes higher than voice or low quality music. Their main use now is with defence systems and scientific research.

Very high frequencies require much less energy but travel shorter distance with less bending. They reflect off most objects. The higher the frequency the shorter the distance traveled before the frequencies run out of useful energy to support services. These are natural characteristics of the electromagnetic spectrum and define the transmission limits. The concept of auctioning spectrum, for one application without any understanding of the flexible nature of digital, and issuing licenses for proprietary infrastructures in parallel, has seriously perverted efficient and progressive deployment of spectrum and contributed to extremely unfair marketing.

The waste is not only in the infrastructure but also throughout the whole supply chain. Producing, supplying, delivering, installing, setting up proprietary and customized processes for each independent operator is expensive and capital intensive.

PayTV spectrum auctioning is a real example of complete failure of government copycat policies and regulations when public and governments are kept ignorant and ill informed of technologies and their developments towards market applications. This has resulted in most unsatisfactory financial waste in Australia.

The first most expensive auctioned spectrum was for very capital-intensive satellite PayTV with later huge losses after government allowed News Ltd exclusive use of the Telstra cable. News Ltd with no capital-intensive spectrum or cable investment at all, (the capital-intensive commitments for all other PayTV licence holders) had exclusive use of a far superior technology. This is one simple example of most abusive and unethical market behaviour, as one of the negative consequences of spectrum auctioning that still has not been corrected.

These illogical practices continue for private mobile phone schemes copied from other nations with different market infrastructures and history. Eventually, because these policies are based on irrational "economic rationalization" ideals, that omit the long-term dynamics of technologies and markets, these small, actually privately contrived, monopolies will

mostly likely become the sole operation of one private monopolist. This process is already underway in Australia. (See later, the history in USA).

Digital carriers on each carriageway transport the services. All services are identified, labeled and addressed and packed into packets ready for dispatch. Packets of various services (the digital "products") may be randomly packed into containers for optimum transport efficiency. The packets, now within transport containers, are then loaded onto the specific carriers, specifically engineered for optimum efficiency for each carriageway, specific for cable, specific for satellite and specific for terrestrial TV and specific for telephony and transported along the specified digital carriageway. At reception, the packets are sorted into correct files for their function. This is possible, as they have all been labeled and time stamped before dispatch, automatically!

The greater the number of adjacent frequencies used for any carriageway (the bandwidth of a channel), the larger and the greater variety of goods and services that can be loaded and transported.

Understanding the constraints and attributes of the natural characteristic of each frequency on the bandwidth and distance are important characteristics to be considered for long-term planning. The higher the frequencies, the easier and cheaper relative to load capacity, almost exponentially, to group even wider range of adjacent frequencies into channels, the super carriageway, and to build the electronic containers and manage their transport on the electronic carriageways. Engineers are continually developing more efficient containers.

The international industrialist's consortium carefully coordinates research and developments with commercial opportunities. It is important that the commission participate directly in international consortiums and forums to gain the insight and overview of these intense programs **for government and for the public.**

Auctioning of spectrum while ignoring all these differentials, unwittingly gives some spectrum purchasers, market advantages to disadvantage other spectrum buyers in an earlier time frame. But it is also destroying the efficiency potential emerging from new engineering. Australia once had the means to advise and demonstrate to government these technology issues, but these engineering groups, due to media interference, no longer exist.

The long-term developments within research laboratories around the world are not known or not understood by the auctioneers or many of the buyers expecting to exploit a market opportunity. Early starters with capital intensive spectrum and privately financed infrastructures are not compensated when government's later auction new spectrum with new and additional market attributes not available to the early investors. Astute companies such as News Ltd understood these issues and government policy gaps in their ability to control "market forces" and waited as the sophisticated national Telstra optical fibre cable progressed.

We cannot electronically transport people yet. That is still an imaginary idea for movies. Digital systems automatically transpose "goods and services" such as documents, phone calls, movies, radio and television programs, data, learning programs etc. These are transposed into their discrete digital electronic equivalents as "products" that can then be labeled, packed, time stamped and transported on the new special carriageways, within the maximum traffic limits of the carriageway for **any flexible mix** of digital electronic "products" which are the electronic goods and services.

This is only possible when common standards operate throughout the system. To confuse the government with more propaganda, the media in Australia have called this multichannelling to keep the focus on television and hide from public view the flexible "product" opportunities of digital technologies.

The main disadvantages of using higher and higher frequencies for transporting "products" are the shorter and shorter distances before the useful energy is dispersed and expires. When light beams are used for transport systems, the useful energy is concentrated within the glass fibers and will support traffic for a few hundred kilometers before re energizing is required (refueling station).

Digital telecommunications systems automatically select the carriers, and automatically pack the correct containers for each selected carrier. With near spent energy the digital carriers unload containers and reload them onto the newly fuelled carriers to be transported to the next refueling station. In the analogue past, we called these fueling station transmitters. In the digital world, relay stations, (the refueling stations) are more frequently employed than just transmitters alone.

The mobile phone cell netting systems, the World Wide Web systems are all relay systems using refueling stations. At each refueling station, the transfer of goods and services is completely automatic, even from motor vehicles to different motor vehicles as they pass from one mobile phone cell to the next. Re charged transport carriers are used to transport electronic goods and services along the next leg to the next "refueling station".

Alternatively any "refueling station" can be a specialized station, for instance one that is engineered to be a redistribution point, where electronic goods and services can be resorted, reselected and repacked into new containers that are loaded and re routed via a different carriageway. When the infrastructure is standardized throughout, this process is seamless and automatic.

From a redistribution station (equating the logistics of a central store) different carriageways redirect services, for instance a branch to a home connection, a transport interchange for satellite carrier or terrestrial carrier for re routing or redistribution. Each cable, satellite and terrestrial carrier system uses specialized container methods designed and engineered for the most efficient utilization of that specific carriageway as shipping and airfreight use different containers. The interchange process (packet

switching) automatically unloads and reloads containers to adapt not only to the container standard but also to the channel planning and bandwidth of the "packet switched" selected carriageway.

Carriageways that use the frequency of light through glass cables have the potential to carry any assortment of electronic "products" up to the largest of loads, from telephone conversations up to hundreds of HDTV programs to the home. The glass fibre tubes for the carriers are wrapped inside a light proof cable. This cable must also carry the energy, (power cables) to refuel or re energize the selected frequencies of the light spectrum being used as the carriers, (the light amplifiers). At the many refueling stations, digital management systems seamlessly pass the digital "products" across to the refueled transport carriers, according to the direction of travel, automatically.

The first optical cable system to circumnavigate the world was completed in 1997. Optical fibre cable relative to recoveries, is now cheaper to manufacture and install than the plain old telephone and wires that also require expensive and slow "circuit switched" exchange systems. Lower cost high frequency cables can, as an alternative, couple optical cable networks to homes (the last kilometre).

When a television program is transmitted on an analogue channel the carrier and the program are complimentary, one complimentary channel is used for only one television program. This is also the case with analogue radio. Analogue transmitters and receivers must be complimentary with the carriageway and the program. The total system throughout is complimentary.

With digital deployment of the electromagnetic radio frequency spectrum, this is not the case. The carriers of "products" (programs and services), the transport containers and carriageways, are complimentary. (All roads are complimentary). Any carriageway can be available for the transport of any "product" (program or service).

The variety and volume limits of any assortment of "products" are limited only by the load capacity of the carriageway. Like depots are to roads, digital transmitters and digital tuners and modems, (transmitter and receiver) are to electronic containers, complimentary. They are dependent on one and the other. Digital services are discrete and independent throughout the transport system, from the digital transmitter to the digital receiver. (The receiver is a computer programmed for the discrete function and with complimentary tuners and /or modems).

A TV transmission for one analogue TV program can only transmit one program. A transmission system for digital TV can be used to digitally transmit any assortment of discrete digital "products", the electronic goods and services such as data, electronic documents and radio programs and one or more television programs. Any or all options of these digital "products" can be carried via the digital television channel (as described for analogue). Each channel is the carriageway of an assortment of free and paid

"products" from the transmitter to many receivers or for delivery of one free or paid product to just one receiver.

A computer can be a TV, a radio, a fax machine, a telephone, at any time, simply by programming the computer for the discrete function. The digital receiver, (a computer with a channel tuner and modem system) unpacks the containers, reads the labels, the time stamps and follows instruction to sort, assemble and present the discrete product function.

The receiver system has stored in its memory, service identifiers of the suppliers of "products". The receivers will automatically tune into the channel that is used to transport the selected service. This is like knowing the time table and flight numbers of airlines. Service or suppliers tables can be down loaded from a transmission or supplied to the manufacturers from the commission (government authority) to load into the digital home appliance on the production line. The government agency within the new commission will manage the data tables for all discrete services, not just free to air television programs, as organized by the Federation of Australian Commercial Television Stations (FACTS) with their private objectives. Australia has a public conflict between Foxtel and FACTS that is destroying telecommunications efficiency in our markets. Telstra supports this! Government authority will remove this most inefficient practice.

Digital identification codes are required in all digital systems today and are used in Australia. This requirement parallels the requirement for physical good movements. The problem is that "self regulations" allow the responsibilities to be left within each of the many industry groups involved. A seamless network requires national standards as do road, rail sea and air. Conflict will arise where two or more independent groups start using conflicting codes for identification and addressing. This is a task for a department of the new commission to manage and regulate.

Tuners (one-way) or modems (two-way) are devices that connect or terminate the carriageways for a specific transport system to the home system, a receiver or computer for example.

A home or office can have the flexibility of using any one or all of tuner / modem options. One tuner connects to the satellite carriageway, the second tuner in the same receiver connects to the terrestrial carriageway, and the third tuner in the same receiver connects to the cable carriageway, and a modem in the same receiver to the telephone. (The receiver is actually a computer with tuners and modems).

A second complete independent home system must be available to connect to the second independent network (one for Telstra cable and one for Optus cable – the same problem with private mobile phone companies). A consumer is unlikely to spend double the money and then for such an inconvenient setup, two complete independent systems throughout the home. The economists who proposed parallel networks to increase competition never investigated this severe constraint. The irrational proposal was never technically studied or evaluated. This intolerable waste

in consumer markets must be removed. Monopolists used the Hilmer report to exploit this gap in knowledge and public understanding. The media has never attempted to explain these extreme conflicts and costs to the public even when they had, many times over from the electronic industrialists, all the information to do so.

Australia should never have committed the capital-intensive investments for independent networks in parallel and to expect all containers of products to be duplicated and dispatched to independent receivers in homes and independent mobile phones throughout Australian markets. This is totally irrational. Yet this is exactly the $Billions of unbelievable waste, inefficiencies and ugliness we have in Australia with Foxtel and Optus cables in parallel for PayTV as a result of Telstra refusal to share its new cable with Optus. This is the intolerable waste because government auctions of spectrum.

Research engineers have never established a need in society for such grossly expensive and inconvenient arrangements for commercial and consumer markets. New technologies provide far more economic and far more efficient solutions.

With less cost than half the $Billions wasted, and without media interference, Australia could have had by now the first full digital transition program almost completed.

The policies for “deregulation”, “self regulation” and “market forces” have become, in Australia, the gaps in consumer market protection. Media operators build proprietary systems into public service telecommunications infrastructures without disclosing to governments and consumers or regulators why and how they do this. These proprietary devices are to vertically control and to thereby monopolize their market. [xxxvi]

The proprietary systems are roadblocks to market entry by their competitors. Entry can only be established following agreements that satisfy the proprietary owner. This is in direct opposition to the reason and purpose for international standards, as developed by an international consortium of electronic industrialists, as do the motor industrialists.

Some suppliers give way, at considerable risk to the manufacturer, producing a product for only one customer. They have bypassed industry intellectual property and patent rights and supply the monopolists with built-in proprietary systems for their one monopolist customer in Australia, otherwise, a manufacturer has no business. In most countries where many thousands of private cable operators have built their own local analogue PayTV networks, this is not such a problem. All still require a complete analogue TV receiver after the private cable-owner’s proprietary box. (Most private and public PayTV cables in other parts of the world were installed long before Australia’s program and are not suitable for digital TV or telephony without upgrades.)

So for digital communications, there is a clear distinction between what are the carriageways and what are the "products" to be transported on the carriageways. Satellite, cable and terrestrial systems have standardized carriageways divided within bands into channels. "Products" in their electronic formats could be free, pay for one, or subscription services.

13 The telephone, like a footpath less used

A telephone copper wire pair infrastructure equates to a physical carriageway that is suitable only for pedestrians and cyclists. People use footpaths to interface with one another or shop for goods. From footpaths, people can board taxis, buses and trains, ships and planes, to move over longer distances. Footpaths equate with the plain old telephone that are now giving way to the convenience of mobile phones. Telephones and mobile phones are suitable for interactive telephone calls e-mails, data and web services and television for very small display systems (electronic equivalent to the Australian Post).

The copper wires used for telephones can be used as a digital carriageway for light traffic. It is the only system, and the one and only system that so far connect, interactively, to almost any home or office locally, nationally and internationally. It is open to all. Mobile phones are progressively duplicating or replacing plain old phones but do not connect long distances without an entry into the Telstra wire pair, a cable or satellite or by arrangement with another cell operator. The major constraint is that, like footpaths, the plain old phone is useful only for " light" electronic services.

We make little use of footpaths today. Individuals have far bigger loads to carry home, far heavier than can be carried home by pedestrians. This is the problem with wire pair telephones. Copper wire pairs for telephony are now redundant, as they cannot compete with an optical cable infrastructure to homes and offices. Mobile phones do carry heavier loads than plain old telephones but even with the best, no where near the vast potential of cable. Homes now without cable are constrained or excluded from the new services. Most wired phones in Australia to homes in cities could have by now been replaced by cable. PayTV aborted the Telecom Australia plan. Mobile phones are no longer just mobile phones but are now already a multi media device but only for small displays. Homes want large displays and different size displays for different tasks in different rooms, far better definition than required on mobile multi media displays.

As can be read from Hansard, because of Foxtel demands, the planned underground cable system is now mostly above ground, and hardly respected as Telecom Australia's underground engineering program, so most people accept these ugly builds above ground as Foxtel or Optus PayTV cables. [xxxvii] The new cable system to the home with these built-in roadblocks removed, will permit all services from personal calls up to HDTV programs and interactive multi media and desk top computers from anyone to anyone who has access to cable, terrestrial or satellite carriageways. Cables to the home will permit any room in any house for the

occupant to have any choice of service. This is way beyond the ability of a mobile multi media device, limited to the need for wider bandwidth by the size of the display (the mobile phone).

Relative to recoveries, Telephone wires can now be economically replaced with optical and high frequency cable systems and will readily provide extremely high volume of products and a wide variety of services and flexible options and choice to the home and office. Money should not be wasted on trying to improve plain old telephone so that Foxtel remains a monopoly. [xxxviii]

Further negative consequences on capital intensive markets and efficiency of markets from these trends will be explained later in this document.

14 Why a revolutionary system:

The simple reason is that Australia cannot afford to be a technology island, isolated from the world's most expanding economy. With Telstra sold, Australia has no possibility of keeping pace with the world. Australia, a nation with huge independent infrastructures in parallel, a mix of proprietary and standard systems across networks expected to service the public, has no possibility of participating in efficient markets with internationally advanced open standard technologies for seamless and automated services. Australia is sliding backwards into a telecommunications country of conflict and confusion, that is allowing consumers to be bullied by a media cartel and constrained from broad understanding and insight of worlds advanced knowledge and skills. The utter chaos of telecommunications and information dispersion must be repaired!

By starting the change process now, Australia could soon become a world leader and a major participant in international telecommunications and soon after, a leader in other advanced technologies. Technologies are the fastest growth sector of the world economy.

The evolution of the telephone has proved that it works most efficiently as one public integrated network with open access to all. The new digital technologies for telecommunications, television and multimedia public services are very sophisticated, very flexible, seamless and a most efficient extension of the plain old telephone network which it should soon replace. It is one complete package.

A few of the Telstra market abuses include "all or nothing" bundling[xxxix] of services. Consumers have no alternatives for subscription TV. Government permits the operators to lock in all suppliers with exclusive supply agreements. The customer's flexible options for home equipment is completely aborted.

Market players are rarely in business for the good of humanity. Operators of proprietary digital platforms can exert considerable control over their

competitors, suppliers and customers. Their competitors also wish to supply the markets. Regulators seem remarkably lethargic and slow to act even with the strong evidence of abuse of a dominant player. Regulators lack the support from government authority. Financial institutions and media authority are becoming even more authoritative than government. Post-digital transition, rules and regulations can be aligned for fairness and equality across all physical and electronic markets. Government will regain its democratic authority for telecommunications and information dispersion.

Content providers want their content to be viewed by as many consumers as possible. Electronic industrialists want to offer their specific attributes, range, flexible combinations and price options. Retailers want open standards and inter operability so that they have access to all mass markets. Consumers want to be able to receive programs and services of choice from their selected suppliers and service providers, in any room of the home. Consumers want simplification of ergonomics and connections, cables and remote controls and flexible options in every room.

But perhaps the most frightening and serious issue of all is that Australians are strictly regulated to provide 9 percent of their wages or salaries to "Super Funds" while the private monopolists use their deregulated "market forces" and "self regulations" to exploit these funds.

The average costs of infrastructures servicing one area is the costs for each independent infrastructure multiplied by the number of independent infrastructure built in parallel. The average cost recovery for one independent infrastructure is the cost recoveries of all infrastructures built in parallel divided by the number of infrastructures in parallel. It is a false conclusion then to suggest "infrastructures" can be built in parallel to increase competition!

In Willoughby, Sydney where already four independent mobile phone towers are built side by side, the community has been informed that the Minister plans two more auctioned spectrum parts and two more towers to be erected. The money invested in these capital-intensive infrastructures could have been used for additional five areas without services. One infrastructure could have been shared between as many operators as per the interests to enter and share the one infrastructure. This is possible with "packet switching" and digital carriers but not possible with "circuit switching".

Private monopolists are gaining large fortunes with in a few years, not from profitable businesses but from market capitalization of their privileged monopolies. Already, we see these earlier owners of auctioned public spectrum,[xl] now among the highest of salary earners, becoming multi millionaires by the sale of their monopoly of auctioned spectrum to the next generation of private monopolists they and governments established only a few years ago.

The best of the skilled technology contributors and leaders of missions, during the Second World War, were barely out of their teens. We see the

same magnificent teamwork from the sixteen nations contributing to the space program. Public funds are used to develop young athletes for Olympic games, a program that assists television owners to capture market audiences and medallists to make fortunes in television advertising. [xli]Young talent in Australia could be trained in similarly intensive programs to develop new industries, to complete missions as allocated by the new commission for telecommunications and in a similar way for other technologies to benefit all Australians.

The reform of telecommunications is the way to re gain the lost ground with the essential digital transition program. The solution should be thoroughly studied and developed into a program of action. Two steps will work in parallel. Parliament nominates a commission that reports to the Parliament, not to the Minister. This should be a commission that is primarily focussed on international telecommunications and multi media engineering. The mission must be clear; government mandates international standards and controls its implementation for digital transition with top priority, open standards on the Telstra cable.

15 Telstra and other essential public foundations for a new start

Telstra under government authority via the commission is the essential foundation for a new start. Australia will have a means for the diversification of media and reduce the media power that has been driving Australia away from the future and into completely wasteful parallel builds and monopolized markets and consumer abuse.

The chart on page 25 displays the telecommunications infrastructure following the digital transition from the current state. The completed transition will then be the electronic equivalent of the physical infrastructure for roadways, railways, seaways and airways. Logistics and administration can be managed as it applies to trade and commerce of physical goods and services, except it will be electronic and completely automated.

The governments of nations, who have behind them, the educational resources that have researched and evaluated, that have provided public, technical and commercial understanding and learning for trade and commerce, will avoid the legislative errors, accidents and abusive practices, that, because of this neglect, has been so damaging to Australia. Commitments without understanding so easily and effectively cripples progressive technologies and their long-term expensively developed and capital-intensive markets as experienced in the UK and now again in Australia.

For the important public understanding of technologies for markets, internationally, industrialists involve university research centres of competence for local market leadership and guidance, where conformance testing and certification laboratories are established under government supervision and authority. These ensure that open and fair markets and industrial and commercial intellectual property is protected. These

institutions are the catalysts to build into our society the knowledge, skills and experiences from developing technologies for the new and expanding markets.

The development of young talent, essential for the efficient economical growth in future markets takes near five, ten, fifteen or twenty years of carefully coordinated and planned education and trade training for the citizens and relevant businesses within the developing markets.

This is the real investment from our current societies for our young people, for the young to have an efficient economic and fascinating future. This is the most essential part of being an adult, the authority of government, contributing where we can to long-term plans and their successful implementation. It is inconsiderate and irrational for this generation to allow private monopolists to manipulate public assets for their proprietary objectives and exploit the wealth in our societies. These monopolists ignore the essential foundations that are critical to the welfare of future societies.

Long-term government supported information and research programs were essential for the new steam train industry, for the new electrical supply industry, for the new motor industry, for the new television industry, for the new aircraft industry, for the space program. The relative efficiency of any nation is dependent on the digital transition technologies that are essential to support and contribute to greater economic value for all industry and all commerce.[xlii] Yet the Australian government accepted the media proposal that research, engineering and developments for digital telecommunications infrastructures were not necessary.

As governments have made no independent study assessment for public appraisal of Telstra, government while making commitments is flying blind and taking consumers also on this blind flight.

It is not too late for Australia to apply a new mission, to develop a new long term plan, to gain a new market position in the world's most expanding economy. Telstra is not yet sold. From the deployment of digital multi media technologies by a solid institution with a sound foundation, Australian engineers, software developers, program producers, service providers, all businesses and enterprises will develop new systems, applications and products.

For many this will open new opportunities in global markets. Government policies should stimulate the growth of Australian entrepreneurs and investors to profit from global markets for Australians, not for global or private monopolistic predators.

The human rights of individuals for fair trade and transparency of markets, particularly where "communications" are concerned, should be upheld and honoured by governments. For democracy to prevail, it is mandatory that governments, not private monopolists, have authority over communications. It is mandatory that government has authority over the how's, the why's for research, education and information dispersion. The alternatives are

undemocratic. Without Parliamentary understanding of the need for a sound institution to manage the change, of the urgent need for legislated common standards and corrective actions in consumer markets, it is not likely that any remedial actions to preserve democratic principles will be available to the uninformed Australians.

16 Economic and social rationalization of multi media

Communications is a process that passes meaningful information from a source to one or more destinations.

Meaningful information is of special value when it is used to progressively advance the intelligence of individuals and groups in our society. This is essential if we are to improve efficiencies in consumer and commercial markets, in the health and welfare of societies. It should also stimulate socially acceptable pleasures and relaxation for individuals or groups.

Markets that have contrived means to limit or constrain access, or to filter information, or by way of repetitive statements without reference to source or authority, can influence attitudes and beliefs, stifle economical developments and democratic objectives. It has to be of concern that a television station that relies on advertising is the number one source of news for Australians. [xliii]

It is well researched and recognised that such media influences change market attitudes and beliefs. Some Australians still remember how Hitler controlled the newspapers and radio broadcasting in Germany and later across Europe for his (undemocratic) objectives. From the start of Television, when the technology was too capital intensive for private enterprise, governments were the first operators. As markets developed, private companies complained of the government monopoly on information to the public. Today the reverse applies, the public complains of insufficient meaningful pluralism of information from the mass media to the public. Governments are exposed to the cut and paste media manipulative practices.

The limits on spectrum constrained the entry of new competition and therefore diversification of television program providers. Because of this, television broadcasters with their superficial but politically powerful communication systems have had virtual monopolies, that is, no possibility of further competition, until digital. The new Multi media technologies provide government with an ideal means to reform broadcasting and communications. Telstra under government authority provides a major opportunity for diversification of media. Telstra sold is the cementing of even a far greater monopoly on communications by a media cartel. The media cartel, astute business managers, naturally wants Telstra sold so that it remains in their control for their objectives.

It is clear that the more democratic governments of the world clearly understand that any impediments to the openness and access for all to

information, applications and services in multi competitive markets is an action against human rights. [xliv]The EEC recommends to its members, strict regulations for maximum diversification and independent ownership, not cross ownership, of media and open access and optimum realization of digital multi media systems for the consumer markets. [xlv]

Customers and suppliers will have the option that goods and services be dispatched in their physical format or electronic format, as multi competitive market options and choice for all Australians. The regulations can parallel those that protect physical goods and services markets and open access to roads, rail, sea and air routes to do so.

Because it impacts on all involved in trade and commerce, in public and private affairs, a telecommunication infrastructure should be the responsibility of the Federal government as a whole, as in USA and as recommended by the EEC. It is no longer a system for only broadcasters or phone operators. It has far more value than for these industries alone. It is an essential infrastructure, institution and a foundation for all. It is central to the economic developments of Australia.

Telecommunications today and for the future is far too complex for any one private company to manage and to develop. It requires a coordinated long-term program well promoted public program, involving the best of the relevant skills and talents within our nation, to develop and build a firm foundation for the future Australians.

Societies have several ways to influence public intellect, interests and attitudes. They include schools and universities, businesses and clubs, newspapers, magazines, libraries, books, radio and television. By far the most influential is television.

Television is the most powerful influence on public attitudes. It is a one way system of communications. It is superficial, especially when advertising is the source to finance programs. Attitudes are easily reinforced by repetition of one idea or repetition of a person's image at the exclusion of all other ideas or people images, a few of the many methods used by a one way communication system such as television and newspapers,[xlvi] that specialize in advertising. The media employ major electronic memory banks. Citizens have relatively short memories compared to media storage. These are problems in many world societies.

Frequently and repetitively the media criticize Bill Gates for having a monopoly on the market (as they did with Telecom Australia). Bill Gates, an entrepreneur, does not have a monopoly on the PC markets, he invented an "engine" for home computers, and something IBM could not get right. The market has not been able to find a better engine to replace this "component". Bill Gates does not vertically control PC markets. Even Bill Gates has not the market power of the media to counter these media attacks on his credibility.

Every PC manufacturer has direct control on his supply and distribution channels. Every software developer can inter connect to the Bill Gates "engine" if the intent is there and if it does not upset the "engines" efficiency. PC markets are open, efficient and multi competitive.

The EEC, where the council prepares the legislative recommendation for each member country to adopt, especially criticize Italy as an extreme anti democratic problem re television. Australia media concentration and cross media ownership is way beyond the limits under the EEC recommendations. The media concentration and cross media alignment and board participation in Australia, with subject matter and opinions, is clearly experienced every day, across newspapers, radio magazines and television. The source agencies of news are even more concentrated.[xlvii] Digital telecommunications and interactive multi media to international standards will re establish democratic principles for information dispersion.

Australia needs a culture change. Australia should restudy the Olympics program that started with brain storming to discover and organize the power of small local groups, working with institutions and many companies, working as young professional teams to achieve most efficient results, a world class of excellence.

Unfortunately this was a program promoted and exploited by and for almost commercial media alone. The powerful and complex forces of young talents and skills and energy for the organization and the building of the infrastructure for the program, a program approach that could be duplicated for any future infrastructure opportunities was soon forgotten.

17 Digital transition, corrupted by a set top box

To introduce the digital transition program to Australia, during the 90's, local and intentional electronic industrialist organized teams of up to twenty engineers at a time to visit Australia. The team members were the more specialist engineers from different companies of the international electronic industrial consortium, from France, Belgium, Italy, the Netherlands, UK and USA. They generously united, world wide, to come as, a coordinated team, to demonstrate digital systems to government, to broadcasters and to retailers.

Moving all the equipment and setting up in Sydney at Darling Harbour and then to Canberra. These several visits cost many millions of dollars, to bring complete digital broadcasting systems from different countries, through customs, with transmission equipment linked to telecommunications, and with HDTV cameras. Live demonstrations were made of all the technical issues, free and subscription, inter operability, inter activity, backward compatibility, telephony, that were researched, invented, developed and put into production.

Systems are engineered from studio to receiver by the consortium of 250 international companies. The demonstrations were on air, via Terrestrial

channels, via the new Telstra cable, from Sydney to Melbourne, via Optus cable from Sydney to Adelaide, and on satellite, and in mobile vans crossing the Sydney Harbour Bridge.

Optus gave free satellite time for days on end, normally $30,000 dollars an hour. Demonstrations included both free and subscription, for standard and HDTV and how these digital technologies interface with digital telecommunications. For hours on end links connected the systems to Europe and USA to show compatibility and inter operability with these circuits, mainly for broadcasters.

Many brilliant young engineers work in worldwide consorted teams. These engineers work towards an international common inter operable and seamless digital package for all people, for free, pay and subscription, not for media cartels to then monopolize (the digital divide).

In mid 90's, the international consortium of electronic industrialists, with the financial support of the EEC and with council members visited the Australian government and invited the Australian government to become a member of the international consortium. Their prime mission is for one world inter-operable seamless package of digital standards for telecommunications, television and interactive multi media to realize outstanding efficiency gains in all markets. Members of government listened to their lectures and attended conferences. But this was not an objective for media companies. FACTS persuaded the Minister, and Standards Australia that membership was not necessary.

When the Telstra cable was near ready for commercial applications, News Ltd engineers from London modified the Telstra public cable to install News Ltd proprietary system. After the government had ignored industry advice to the contrary, the consortium of international electronic industrialists has agreed not to spend any more money for the Australian program. The reason is that Australia's policies are now in direct conflict with the "one package", for open and world wide digital technologies for telecommunications, television and inter active multi media in all consumer markets.

The consequences of policy flaws, leaving the responsibility of standards to "Market Forces" and "Self Regulations", of the Australian governments that permit these private monopolies to develop, are well understood by the FCC. USA inherited the problems from birth, and from negative experiences, strictly regulate for these and associated problems. It is well understood in those countries that have public research and Universities with the knowledge and experiences of the standards and software engineering, but not in Australia. Europe and especially China pay particular attention to these issues with the new digital technologies. Australia was once a pioneer, way ahead of China two decades ago, actually supplying China, but these engineering activities have been aborted since News Ltd partnership with Telstra in Foxtel.

The media cartel partners understand the policy flaws and have taken advantage of the regulatory control gaps that allowed it to take over the authority from government and to exploit Telstra by installing proprietary systems on the Telstra network. This abusive anti fair trade and vertical market controls on the public owned Telstra cable, on suppliers, distributors, consumers and electronic industrialists intellectual property, for their monopoly on PayTV markets, is an extreme example.

Foxtel uses a proprietary system incorporated on the Telstra telecommunications cable, as per News Ltd instructions, to ensure that cable TV will not work with the same home receiver as used for "Terrestrial TV". This is the digital divide in operation. The Australian government by not supporting international standards is a world supporter of the digital divide. Proprietary digital technologies vertically control markets and provides private monopolists a very special legal, technical and financial subsidized privilege. This would be corruption if permitted in the physical markets.

The method of controlling the renting of a private cable belongs to the private cable owner. A private cable owner should be able to control their investment. The owner has the right to set the control system for the payment of cable rent. Private cable owners as the owner's of their proprietary switch (set top box) in front of an analogue TV have done this. The set top box analogue "cable switch" is their control of the cable rent and it does not interfere with the programs delivered to the analogue TVs.

These, are in a sense, switching devices to switch off the cable to those people who did not pay the cable rent. The cable owner would never even consider letting a customer set the standards of his switching device in front of an analogue TV. That would be irrational management on his part. Each private or public cable company has the right to switch off services if the cable rent was not paid.

The set top box-switching device never interfered with analogue TV markets or the television receiver. All switching devices still required the analogue TV after them. However, the "set top box" cable switching later became a channel switch as well as a cable switch for instance to control the sales of TV programs to a hotel room. This started the trends towards anti trade and anti competitive abuse. A set top box owner with this additional device not only controls the cable but also control the channels.

This became abusive when program distributors started to exploit consumers by restricting, constraining and filtering channels, and then using bundling that further constrained consumer program values and choice. Pornography was added to their scheme. Electronic industrialists recognised these anti fair trade practices and social constraints developing as for instance when News Ltd started these practices in the UK.

Industry never developed a universal technology for analogue subscription TV. Analogue transmissions and programs were complimentary, so there was no simple engineering solution that would satisfy commercial

objectives without strict government controls. This was not achieved because the media owners of television entering the PayTV business had more influence on the drafting of PayTV legislation than electronic industrialists had.

The boxes are now extremely abusive as they are used to control consumer access to programs, via cable satellite and terrestrial electronic carriageways, not for the public or private owners of the carriageways but for the proprietor of the box. International consortiums of electronic industrialists do not support this abusive behaviour and monopolistic control on supplies and deliveries to consumer markets.

Subscription TV and subscription multi media is not about the cable rent or use, its about buying programs from suppliers and selling them to customers. The FCC and the EEC understands that we are not talking about a switch in front of the standard analogue TV when we talk about digital television and inter active multimedia. The FCC and the EEC have their own engineering group to study these issues. The Australian government does not have such a facility. The equivalent engineering groups were closed down by private influence from the Federation of Australian Commercial Television Stations over the political authority of government.

Television operators do not want governments interfering with their powerful proprietary tools and technologies used by the privileged television monopolists. One interference source for them is an institution experienced with the technologies. Therefore when government closed the facilities that educate the community and keep government informed, one major source of interference was removed.

The research laboratories involved in digital engineering for Telstra and digital television were dismantled. (One was in the government laboratories in Canberra and one within Telecom Australia in Melbourne). Australia no longer has an education institution as an avenue for learning, experiencing and advising governments on the Telstra schemes and future potential for digital telecommunications, television and multi media technologies, software management, systems and applications.

Digital technologies offer a most flexible fair-trade and multi competitive market opportunities that, with government understanding and support removes all trade barriers, hence the FCC announcement for mandated standards re free and subscription television.

Digital television has a system that analogue television never had. Digital transmission channels are analogue channels (Radio Frequency, RF) and therefore are complimentary with the channel tuner of the receiver. The programs, or better described as the products, are digitally modulated on the RF transmission as discrete products. The digital channel can be transmitting several discrete products at the same time. Some can be free, some can be “one off payment” and some can be subscription, any or all options for the delivery of discrete electronic products via any satellite, cable or terrestrial channel, together or one at a time.

This flexibility is a special attribute of the digital system for every one to use, customers and suppliers. The digital free and subscription system does not control the channel or the cable. It controls the products. It controls each discrete product.

This is not the renting of cable or channels (the carriageways) being managed. It's about giving or selling a program, a commercial product, from a supplier of choice. If a private or public cable owner is renting the cable to a household, he is entitled to switch off the use of the cable if the rent was not paid. Telstra should be renting the public cable for delivery and payment of TV products and any other electronic products to any wishful user in the same way as telephones are rented.

Telstra rents the telephone, with few exceptions, to all consumers and enterprises. Some people use the Internet to buy for instance from e-bay auctions. Telstra has no right to control where and how a telephone line user can buy goods. Telstra has no right to control the distribution channels of e-bay. But Telstra does have the right to switch off phone services if the electronic carriageway rental, the phone line, is not paid.

However Telstra has let Foxtel control all telecommunications carriageways for products greater than can be delivered by the more restricted carriageways of BigPond broadband or Optus broadband on both Telstra and Singtel cables[xlviii]. They control what customers are allowed to buy or get as free products. They control who is allowed to sell or dispatch as free products, and who is allowed to use the Telstra or Singtel cable for television or interactive multi media products too large to be transported by the constrained services from BigPond.

The public is denied access to the telecommunications cable networks for anything that may appear to be in competition with the media cartel objectives, that includes any products as large as Foxtel sell.

Foxtel has claimed the control of the Telstra and Singtel cables, control on who can supply products, control on what customers are offered to buy and control on what the total bundled price is going to be. This is not for each product, (the value of each product is not disclosed), but in "no choice" bundles of 30 or so different products or nothing.

This is most abusive for family choice and values, particularly for the less well off households who are denied any privileges from the new technologies, a totally antisocial system that removes choice and flexible options for any member in any room in any house or mobile vehicle. Proprietary set top boxes or proprietary mobile phones should not exist. These are abusive devices for the public and suppliers to be denied access to any alternative supply source unless by special arrangement not from Telstra nor Singtel, the cable owners, but from Foxtel as controlled by the

media cartel. (This applies for any public spectrum used for telecommunication, television and interactive multi media.)

This is not an international standard that Telstra maintains throughout its cable system. This is a proprietary system so each abused customer must connect the Foxtel proprietary box and connection cables to the home television and a proprietary remote control. Little option is now available for consumers who rent from Foxtel or OptusVision (which is by way of a contact to duplicate most Foxtel programs) at home without extreme complexity. Telstra has replaced the digital transition program and installed this private monopolistic and abusive system.

Post digital transition, the one integrated telecommunications infrastructure will provide the complete system for each supplier of products in their electronic form to be delivered directly or via a distributor of choice to any one, many, or all, as any option, free, pay, or subscription.

The supplier manages the payment systems directly with customers just as they do in the physical world of goods and services. All suppliers want the same potential to use the electronic carriageways to deliver their large electronic loads to customers the same way they use physical carriageways to deliver large loads, too large for footpaths, delivered from their manufacturers and delivered to their customers.

All suppliers in all markets expect to have carriageways from their producers of choice and carriageways to any one or all of their customers who are willing to purchase their products. Each customer buys products directly from the supplier of choice. This is the system in our physical world of goods and services in a multi competitive market. This is engineered to be the digital system in the electronic world of multi competitive markets.

Any broadcaster can deliver free or subscription or sell programs as per individual order. The university could do the same. It is irrational to allow Telstra to control markets, products, choice and options. Telstra should be providing and maximizing the efficiencies of electronic carriageways. This is the concern of Singtel. This is what Optus expected when it asked government to share Telstra cable and was told to deal directly with Telstra, and then to be blocked by the “market forces” of News Ltd and now the media cartel.

The private discussions and processes as how this was achieved can be read from Hansard. The FCC places such processes on their website and promotes to the public these issues for the public to examine as do the EEC.

The FCC has mandated that no one will do business in USA the News Ltd way. The UK realizes the problem after experiencing how abusive PayTV has become, so financed the BBC for about 30 free to air digital TV services to compete with News Ltd’s monopoly that had to be tolerated for near a decade.

The UK television broadcasters and program producers, in the late 80's were severely constrained because of News Ltd proprietary system, permitted by the UK government, for one company to monopolize subscription TV. ("Market forces" at work). The Australian experience is far worse. With this experience the same astute company has not only monopolized PayTV but also controls the Australian telecommunications investments to do so.

Telstra's telecommunications cable, financed by and built for the people, is a public service network, like roads. Government would never be able to allow one private company to make the "self regulations" and "market forces" rationalization for one private heavy transport company. One company would never be permitted legal and financial privileges for the exclusive use of Australian national highways. The public can see traffic on the physical carriageways. The public cannot see the traffic on electronic carriageways.

This preferential and most generous privilege to one Telstra partner in Foxtel, could only come about when the board and the management of Telstra have no understanding whatsoever of the telecommunications technologies and the industry objectives, the objectives of the institution for which they are responsible. Alternatively it could be a board and management where the media cartel have more authority than government for the appointments that will be subservient to News Ltd and the cartel partners objectives.

The Hilmer report omitted to explain the two "market forces" in society. One is from those who contribute to expand the intellect, health and wealth in societies for mutual or shared gain. The other is from those that have a prime objective of accumulating power and wealth at any cost to others. These are the private monopolists in our societies.

This is not an efficient capitalistic multi competitive market. This is a monopolist market, a process that gives capitalism a bad name. The consequences are completely economically and socially irrational and remain uncorrected.

It would be near impossible to do more damage to access, investment waste, fair trade, social values and ugly environments re telecommunications than we have achieved in the last decade in Australia. The differential of services between rural and urban societies is wider than ever. This should not be in Australia, our country claiming about world's best economy.

The public, the judges and law courts have little influence against the misbehavior as experienced by Telstra. This is not possible while the public and judiciaries are completely misinformed or have no official independent means to demonstrate these contrived mal practices. Therefore the government itself must invest in systems and processes that distribute the intelligence and have the means to diffuse this knowledge throughout communities so that the information contributes to the essential missing values for the people. Other nations clearly demonstrate ways to do this.

A university marketing faculty should study the various devices used in most secretive ways to manipulate markets. Clear examples are the controls used for pricing and the various and variant arrangements between, for example a newsagent store and a store in a shopping centre and the systems for the major chains and PayTV. The pricing and price bundling and discount arrangements and how they distort product value, and develop into anti competitive markets and abusive trade practices should be public information. The steady creep of abusive pricing and distribution policies should be open to public knowledge. A university marketing faculty could publicize how monopolists use anti fair trade devices and how "self regulations" removes government authority from fair trade and market protection.

Local communities have equal rights to use spectrum or local news publishing for local services and local editorials.[xlix] They should not be subjected to media networks alone. These trends are removing authority from the government to authority over people from the media and financial institutions.

Digital communications using proprietary technologies for public communications provides the means for private operators to intervene and access the most confidential of information unless encrypted by the owner of the information. Spyware, cookies and PayTV set top boxes are tools for intrusions on consumers' privacy. Only when communications are controlled for public, using international standards, can normal government policing measures be used to protect communities from this most serious exploitation, already out of the control of government in Australia.[l]

We have two laws in Australia, one for the public and a law of their own for media and financial institutions. The government now has a special opportunity to reverse this most serious anti social and abusive monopolistic trend. Telstra strictly and firmly under government authority will be more efficient and more profitable than ever. Otherwise Australians will continue to be exploited by monopolists, already a stage too far.

While studying market at Havard as an example of political power creep, one Professor explained the experiment with a frog: "If you place a frog into boiling water, the frog immediately jumps out. However if you place a frog into cold water, and slowly bring it to the boil, the frog stays in the water until it is cooked".

Australia does have a government that with study and understanding, would recognise an opportunity for a revolutionary program. A responsible and sincere government would not commit our young Australians to be permanently under the control and influence of private "market forces", a media monopoly.

The Financial Review exposes the irrational and superficial simple-minded political and undemocratic attitudes and influences in Canberra re greed,

money and power with shameful disrespect for the values of a telecommunication foundation and for the concerns of Australian citizens.

"Push, shove and schmooze…
Frantic jostling for the Telstra tart" (Jan 22 – 23, 2006, Page 18).

18 History of events that destroyed digital transition

It was as long ago as 1982 that a consortium of international electronic industrialists committed to a long term investment to provide, to the world, a revolutionary concept that would dramatically improve the efficiencies for all industries and commerce.

It was the beginning of a revolutionary approach to digital electronics. The industrialists agreed to share the research costs by allocating special parts of the plan to different industrialists. Each worked on his allocated part, which also involved, internationally, public university research centres of competence. All members agreed on a long-term plan to phase out analogue and incompatible digital programs to be replaced by the new digital plan. It was agreed that the planning would be under committees that controlled the stepped phases from research, prototype trials, technical evaluation, commercial evaluation and release to markets. This was the beginning of an open market digital concept that now includes all interactive multimedia.

It was well understood by their consortium that the technical and commercial evaluations would have to include governments, internationally. By 1992 the first of products were in the market place for digital applications on international satellite systems. This program originally included digital audio, digital video and digital television. Their program is now converging telephony and interactive television, the Internet and the web. All members of this group agreed to standardize with one common platform and share in a pool for patents and intellectual property.

Over 250 international electronic industrialists and universities are members of this consortium (including governments), that support this program. An invitation to the Australian government to participate was declined. Some members join to interfere. FACTS claimed at the time that they and Telstra would represent Australia.

The Australian private industry laboratories included a small group of Australian engineers who invented and engineered the automatic electronic tuning system used today in every analogue and digital television and VCR in the world. These engineers assisted Telecom Australia in the planning and engineering of the world largest and most modern cable system.

The Minister was persuaded to close the public research resources and conformance testing. New members were appointed to the board and management of Telstra. The cable was under its first trials of digital television to the home when government announced that Telstra would

partner with News Ltd in Foxtel for exclusive television use of this huge new telecommunications network.

Within six months, engineers from News Ltd, UK were instructing Telstra how to modify the Telstra cable for News Ltd proprietary system. From this point on, the engineering responsibilities to Telstra for the well-advanced cable was under the direction of News Ltd engineers, not Telstra. The supporting engineering laboratories in Australia, working on the digital program, closed down to move to other international markets including China.

As can be read and studied from Hansard, the News Ltd pressure, via Foxtel, on Telstra was the catalyst of several most damaging influences on Australia and the Australian economy.

1 Optus was not granted permission following their request to government who redirected their request to Telstra to share the Telstra underground telecommunications cable. Optus, to participate in the Australian markets had no option than to build its cable in parallel. Government policy as recommended by the Hilmer report was to privatize infrastructures and create competition by forcing Optus to build a separate cable.

2 To achieve the market underground reach already achieved by Telstra, Optus negotiated with energy supply companies to suspend their cable on poles, similar to the ugly system in USA and Taiwan. (USA inherited private ownership and monopolies of telecommunications from birth, but they FCC constrain the parallel build in the same markets. The compromise for mobile phones monopolies in USA generally, is that one licence group services private communities, one services the commercial sectors and the third, long distance. The FCC objective is not to duplicate infrastructures in the same market.)

3 It appears from [li]Hansard, that the board of Telsta committed Telstra to a contract with News Ltd via Foxtel, with penalty clauses, to have channels in operation to two million homes with in a stated time period. Telstra then requested that the cable housings from the contracted supplier be modified for above ground build to ensure pace was maintained ahead of Optus. That was the end of the planned underground telecommunication cable.

4 Consumers and householders continued complaining to their local councils, State government and Federal governments, re the ugliness being built on their frontage. They were ignored. Government could not stop the progressive ugliness in front of millions of homes, streets and shopping centres. Future generations will have to pay the costs to rebuild these as underground systems, hopefully integrated with the underground energy supply systems. (The underground build requirement is in the legislation)[lii].

5 “Self regulation” and market forces” prevailed over social concerns and democratic principles. Our sound public foundation was already

crumbling under the weight of media pressures. This demonstrated that the consumers of Australia have no way of democratically correcting abusive damage to their environment and to their social values. This abusive undemocratic behaviour continues in electronic consumer markets today. Media is taking authority from government.

6 Optus, discovering that the Telstra cable was also a telecommunications cable, had to re modify their cable build to match the Telstra cable telecommunications potential. This was costly to Optus.

7 By this time, with News Ltd proprietary system and exclusive use of the telecommunications cable, earlier investors in PayTV had no hope of survival. The government department ignored the many submissions from electronic industrialists, Ch 7 [liii] and others that the government was committing the Australian markets to these consequences. Let "market forces" decide, was the repeated regular response. [liv]Many $Billions of investor's funds have been lost. Road frontages have been left as an ugly reminder of "market forces".

Australia is the only country in the world that has a publicly financed national optical fibre underground (but now above ground) cable system to pass about six million homes or more and prepared for digital telecommunications, television and inter active multimedia. Most countries that had PayTV long before Australia are committed to thousands of independent private coaxial cable systems. It will be many years before these countries could match Australia's opportunities with a national cable system that interconnects all cities and major towns (except for the ugliness).

Well recognised by international technical journals, and in international technical forums, Telecom Australia was one of the world's most respected telecommunications institutions. It was most profitable and efficient for all Australians. It planned a revolutionary program for Australia.

Markets are dynamic. It took from 1982 until 1992 for a digital telecommunications optical cable network for Telecom Australia to develop from a laboratory research program involving many international electronic companies, in Australia and around the world, to collectively produce the plans and build a national telecommunications optical cable for Australia.

This solid foundation built the worlds first modern national system prepared for the new digital telecommunications and television home services for the next 5 or 6 decades. Within six months after its first advanced phase was completed, this solid foundation fell to the "market forces" of the media especially for one objective, control of television markets. The early Telecom Australia admirers from China and elsewhere soon lost interest once they observed that the digital transition plan was aborted.[lv]

It seems even worse again when this is the consequence following governments' political statement to the public that claimed "diversification" of media ownership and control. Foxtel control on Telstra has been the

means for one media cartel in Australia to become the most powerful of almost a duopoly pair in media in Australia, and take from government all authority for telecommunications technical, financial, legal and social policies.[lvi]

The cartel is too big to regulate, says the ACCC[lvii]. It continues! The sale of Telstra is a national and natural monopoly for the astute companies, the members of the media cartel, and would mean that any diversification of media following the sale of Telstra would be virtually impossible.

Members of Parliament have been falsely informed that most nations are privatizing Telecommunications. Of the 25 organizations for Economic Cooperation and Development (OECD) countries, only three have a fully privatized national telecom operator.[lviii] Non have anywhere near an infrastructure so near ready for digital transition as Australia.

Let me quote a reference by Bruce Page who once was a reporter for a newspaper now owned by News Ltd:

"Freedom only for the supporters of government, only for the members of one party – however numerous they may be – is no freedom at all. Freedom is always and exclusively freedom for the one who thinks differently…. because all that is instructive, wholesome and purifying in political freedom depends on this essential characteristic, and its effectiveness vanishes when "freedom" becomes a special privilege."

19 A digital package but not without blackboard and chalk

Digital multi media is far too important to the future economy and for the development of intelligent societies for it to be left to the uncertainties of "market forces". Its special social values include education and diversification of opportunities and choice. Government policies should stimulate, not destroy these opportunities. The government has now a clear opportunity for action. To have speedy and responsive telecommunications that include television and multi media channels to consumers from governments, Libraries, Schools, Universities, Research Centres, Stock Exchange etc is one way to bypass the media filtering of information, an action several countries already adopt.

A wide variety and diversification of independent newspapers, independent magazines, and independent books, independent multimedia together with paper and pen hand writing tools contribute far more powerfully to the learning / brain development processes for intelligent thinking and entrepreneurial opportunities than could ever be achieved by commercial television.

The extremely valuable digital technologies and spectrum are being completely wasted by monopolistic exploitation. The social opportunities should not be severely constrained by cross media ownership or vertical market monopolistic controls. The best ideas for the progress of science

and technologies still start from small groups of highly intelligent young people working together. They deserve to have unconstrained access to such opportunities and have open access to widely disperse their knowledge.

The new digital media options today include the world wide web, enhanced inter active services with digital television, digital radio, home personal digital video recorders, and multimedia delivered on second and third generation digital mobile phones or multi media hand pieces. In the future, broadcasters will use the same public networks infrastructures used by commercial and private users.

Variety, diversification and independence of media are the requirement for pluralism. These lost values and opportunities must be re established. As it is a requirement for efficient physical markets, telecommunications policies should permit open channels to horizontal markets, uninhibited by cross control and cross ownership and privileged exploitation of businesses. Digital electronic communications can be open for all contributors, for all producers and supplies, and for all consumers.

The need for common standards for consumer markets is well understood and recognised as one essential requirement for efficient markets. Establishing and regulating common standards is not without risks and errors. Public involvement with trials and commercial development is essential. Universities are excellent institutions for this.

Many products could be delivered to consumers in their physical format via physical distribution transport systems or in their electronic format via electronic distribution transport systems. Book retailers could distribute a Science Encyclopedia or a book on Art, physically by Australia Post, or electronically via a terrestrial carriageway, via a cable carriageway, or via a satellite carriageway.

So, in the marketing sense, physical and electronic carriageways are optional distribution channels. All producers should be permitted their choice of delivery of their products to markets, using distribution channels and physical or electronic carriageways of choice. No longer is it a requirement or should it be an option that physical goods and service markets must follow strict behaviour laws while media markets are a law of their own.

20 Conclusions

I have explained how The “Hilmer Report” ignored the long-term technology and social dynamics of markets. Due to the wide spread informalities proposed in the Hilmer report, severe constraints have been place on trade liberalization. Australia is one of the world’s most naturally endowed nations but with a culture of exploitation, not development.

I have explained the processes that allowed a media cartel to control Telstra and the devastating financial and social damage to Australians from privatisation policies. Government no longer has the authority to enforce telecommunications regulations or trade practices to protect consumers from abuse. I have explained that these are dangerous undemocratic trends and are severely inhibiting opportunities for vastly improved efficiencies of telecommunications infrastructure and consumer choice.

Australians are steadily being committed to external financial control of their social life. A family is paid to have a child. A family pays into a financial retirement fund but must commit to near a lifetime of borrowing to live in a home. A family commits to government loans to finance the family university program. Australian adults should be able to finance free education based on merit for all young Australians committed to a focussed education for Australian objectives. Anyone without merit qualifications should pay full price if they wish to be involved in advanced education.

Otherwise too many sons and daughters, even on merit for Australian objectives are in public debt before employment. This is a selfish disservice to our young people. Little is clear that the funds put into retirement will earn a satisfactory retired life style. Certainly the income from BHP (1.4% yield) and News Ltd (0.3% yield) where a high proportion of market investment are being made will not support retirement.

The average Australian families are steadily being humiliated and placed at long term financial risk while those with access to monopolistic marketing privileges are becoming amongst the worlds most wealthy. The idea and management of multi competitive capitalistic markets for open access, fair trade and entrepreneurial opportunities are disappearing.

The political power from the concentration of media is gaining irrational influence over government plans and objectives as clearly demonstrated by the Telstra experience. This can only be reversed by strict simple and fair measures that are clearly understood by all as proposed for the reform of telecommunications.

The evolution of the telephone has proved that it works most efficiently as one public integrated network with open access to all. The new digital technologies for telecommunications, television and multimedia public services are very sophisticated, very flexible, seamless and a most efficient extension of the plain old telephone network which it should soon replace. It is one complete package that should be managed for the public as one complete package.

With the digital transition program under public transparent authority and with common standards across all carriageways, government regulations and commercial administration processes can apply equally to the telecommunications logistics of our nation as it does for the physical logistics of our nation.

New technologies are ready for Australia to provide revolutionary opportunities that will dramatically improve efficiency and stimulate the economy of Australia. Young Australians will have new entrepreneurial opportunities to enter and to compete in international markets. It is not only democratic but legally, technically and economically essential that government reclaims authority over Telstra and installs throughout Australia the electronic transport standards, infrastructures and disciplinary controls, as we do with physical transport standards, infrastructures and disciplinary controls.

Telecommunications, television and inter active multi media impacts on all involved in trade and commerce, in public and in private affairs. It is an essential infrastructure for all. It is central to the intellectual, economical and social developments of all Australians.

It requires a coordinated long-term program involving the best of the relevant skills and talents within our nation to develop and rebuild a firm foundation for the future Australians. This was once understood. The government's political focus on "economic rationalization" put this program completely out of focus.

A responsible government will uphold democracy and will build a sound telecommunications foundation supported by the relevant university research and engineering foundations to service and provide a balanced support for "industry" and "commerce", and the social needs of communities and families throughout Australia.

Dramatic efficiency gains will be achieved and social lifestyles improved in all markets and all communities. Telecommunications will be open to all for new opportunities in trade and commerce, in education, arts and culture that are currently blocked by Telstra's imposition with proprietary devices.

Ready now for markets are digital devices that with international standards in place will provide unbelievable flexible range for a business office, to sophisticated devices for research laboratories, hospitals, and libraries and for home and family. Telstra is the catalyst for new multi competitive efficient markets to be realized.

The essential requirement is one total integrated public telecommunication infrastructure conforming to international digital standards to ensure seamless standards throughout commercial and consumer markets. Computers and software engineering are the basics for any application from a hand held multi media device to a HDTV home theatre, or an automated physical transport system.

Modems that can be used with satellite, cable, terrestrial and / or telephony digital carriageways. Credit card readers that can be used for any domestic or commercial need. Memory stick devices such as the USB2 ports to enable any device or commercial process to be personalized. The Australian markets are by these means wide open to innovative suppliers, operators and multi competitive horizontal markets.

The commission will employ experienced professionals to integrate objectives within local communities, for their effective supportive roles, education, training and subcontracting and software management systems. This program concept will re establish the government's new Australian Telecommunications Commission as a world respected Australian Icon.

Technology is the world's fastest growing economy. It is essential that Australian government via the commission be totally informed of the international technologies, directions and opportunities. Australia could lead the world in software application in markets less developed than Australia.

Digital communications and interactive multi media is a new opportunity to access and release the powerful and complex forces of young talents, skills and energy to participate in building the future infrastructures, industries and an efficient economy.

Policies should unite Singtel and Telstra digital transition opportunities and objectives, not divide. Policies should build multi competitive markets, not media monopolies. Policies should be for the people not for cartels.

Australia has an opportunity to become a world leader. It requires government to nominate the commission, announce the mission, monitor and support progress. Australia has the talent, the infrastructure and the opportunity. There is neither need nor purpose for government to bring in outsiders. Australians will call for help, internationally, but not for control. Australia is able to start from within Australia and earn its independence for Australians to enter global markets for Australians.

Brief History of Telecommunications in USA

In 1837 Samuel Morse invented the Telegraph. This was a very slow digital system. In 1845, with private money he formulated a company. By 1851 there were 50 telegraph companies servicing railroads, newspapers, banks and government. In 1856 the Western Union Company was formed. By 1866 Western Union had absorbed all telegraph companies.

In 1876 Alexander Graham Bell patented a "voice" system. With a financier to back Bell and his partner Watson, they formed a company that soon had 600 subscribers connected by wire pairs. Ringing codes were used to identify users. By 1876 the plug and socket switching was invented, using "exchange" operators. Western Union adopted the Bell system and a dispute followed. An out of court settlement resulted in Western Union buying out Bell. Western Union established many Bell franchised regional operators across USA that did not interconnect.

In 1885 AT&T was formed to build and operate long distance lines to interconnect regional Bell franchisers. By 1911, the regional companies were re organized into large companies known as the Bell associated companies using the Bell system headed by AT&T. With electricity available to cities and with progress in switching technologies, major progress was made in efficiency improvements.

(Internationally, governments were adopting the system as a public utility. The system was recognised as a natural monopoly with the infrastructure builds on public property. The government owned the telephone monopoly, was accepted as efficient policy, until interrupted by an economist proposal that spectrum was valuable and could be auctioned by governments.)

By 1947, the transistor contributed to major changes and efficiency improvements.

It was recognized in USA that wide spread general-purpose communications could have significant national benefits if and only if they were developed in a uniform and compatible and inter operable way. The State and Federal governments considered the concentration of private investments in only the more populated centres was not good enough. What was needed was universality, the ability of a person at any telephone to communicate with a person at any other telephone. It was also recognised that telephone companies should make a fair profit for their investors and for the risks they were taking.

Several Regulatory requirements emerged, interference, spectrum management and standard numbering systems. Common carrier regulations emerged to ensure a limit on the number of companies that provided public services. The idea was to prevent the duplication of services and waste on capital intensive infrastructures. Private companies are regulated in return for which they are permitted to be a monopoly in their territory.

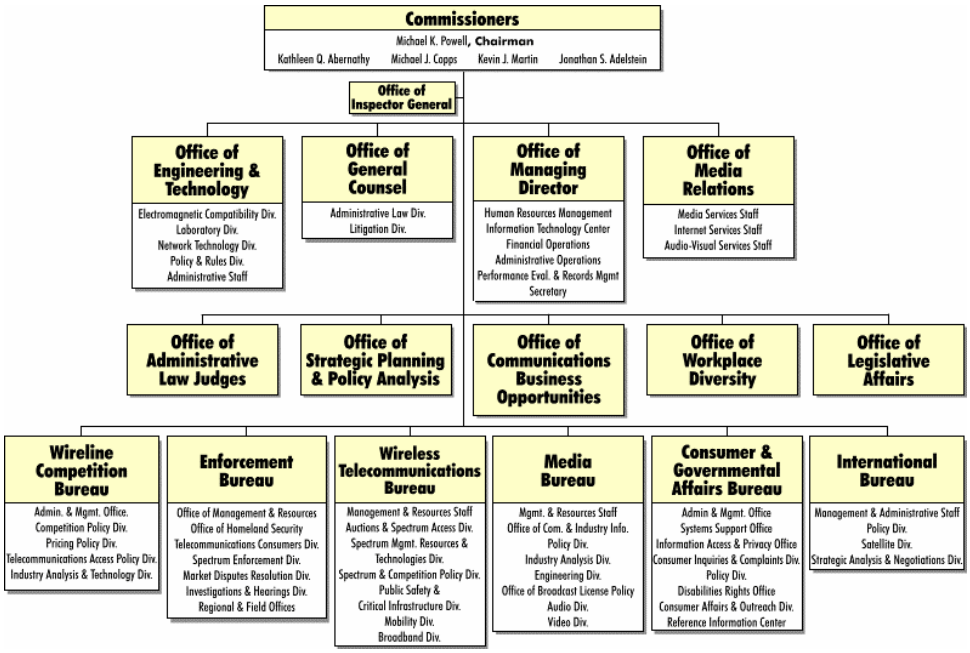
In 1910, the "Interstate Commercial Commission" (ICC) was formed to control standards and prices across States and to ensure remote areas were supported with phone infrastructure builds. Conflicts and confusion developed as rural populations

expanded and became part of the urban population. AT&T was forced by the regulators to divest its large monopoly into many regional smaller monopolies of non-overlapping networks.

Political issues included whether ICC was more concerned with transport than telephony and radio. In 1934 the Federal Communications Commission (FCC) was formed to regulate telephony and later, television, while ICC concentrated on physical transport. More recently the FCC was made responsible to the President for regulating satellite, cable and terrestrial spectrum for telecommunications, television, radio and interactive media including investments from USA in international circuits.

The President appoints the commissioners. Only three of the five can be appointed from the ruling party. None are permitted to hold interests in FFC markets.

As explained above, the FCC is currently providing new initiatives for the consumer open markets for Digital TV.



Political trends and swings

Trends Towards Monopolistic Ideals	Trends Towards Capitalistic Ideals	Trends Towards Communistic Ideals
Politics influenced by media and financial cartels	**Power by the people Open and transparent government**	**Power by small groups in government communism / fascism**
Monopolist control business opportunities and markets **T**oday's capitalization gains from industry exploited for today's wealth. **C**losed access to influential information used to manipulate government policies and programs. **A**ccess to information kept as confidential to the public. **M**onopolistic trends by using legal processes beyond government's affordable capabilities or detection. **P**roprietary devices or self-regulation to lock out competitors and lock in suppliers. **Concentrated media power influences public attitudes, beliefs and behaviour.**	**M**ulti competitive business assets privately owned and controlled. **B**alanced and well-regulated industry and commerce. **S**trictly disciplined and clear policies effectively support and protect free markets and fair trade. **G**overnment foundations for research, engineering, industrial, agricultural and commercial realization. **F**reely available information and education and statistical monitoring of industry and commerce. **Multiple independent and diverse media sources.**	**B**usiness assets owned and controlled by the State with privileges to the selected controllers. **B**usiness information held as confidential. **P**lanning by closed committees. **D**iscipline of workforce and programs by militant methods. **R**esearch and engineering strictly directed from central committees. **F**inancial markets under government control. **Government controls the media**.
Individual innovation and opportunities subdued.	**I**ndividual innovation and opportunities stimulated.	**I**ndividual innovation and opportunities lost.
Customers and suppliers abused.	**G**overnment (or their agencies) own and control monopolies for the people.	**P**olicies favour the select few.
Supply and/or distribution channels economically constrained or monopolized.	**C**onsumers and suppliers benefit from efficient and open channels to markets	**M**arkets and suppliers become inefficient and misdirected.
Product, services, price and choice constraints, abusive policies such as bundling.	**M**ultiple options and choice	**P**roduct, service and choice restricted, prices controlled.
The rich get richer at costs to long term industry objectives, suppliers, retailers and consumers.	**C**ompetitive equalization for the distribution of wealth. Global opportunities for Australians	**T**he rich get richer at costs to Consumers and markets or by corruptive practices.

The commission for the reform program

The ACCC has announced that Telstra is too big to regulate. The problem is that Australia is not implementing government regulations. Australia has lost regulatory control of Telstra. Without engineering standards in place to test conformance and discipline the behaviour of Telstra, government has lost control of telecommunications technologies. Telstra is out of control of government, financially, technically and legally.

No private company has the where with all, the means to correct the damage, let alone build a telecommunications infrastructure for the future of Australia.

For the public protection, urgent correction of these irregularities must be top priority.

Immediate Objective: (as a starter)

Government has systems and procedures in operation to ensure conformance to international standards for telecommunications, television and inter active multi media throughout all electronic public carriageways and for relevant consumer products expected to be sold into consumer markets.

Telecommunications conform to standards throughout all public electronic carriageways that permit open access for all to all public networks for telecommunications, television and inter active multi media.

The proposal:

Set up the commission, three members from the government and two from the opposition:

(Alternatively Australian / Singapore governments,)

Within the public domain, to be responsible for disciplinary and regulatory control of:

Technologies
Standards
Spectrum
Satellite
Cable
Terrestrial (- mobile phones, radio and television)

And including telephone copper wire pair systems

Objectives: To repair and restart the government program for digital transition

To mandate the standards to be used for digital telecommunications, television and interactive multi media in Australia. These are all complete and available from international standards organizations.

To inspect Telstra and thereafter, all operations for financial, technical and legal irregularities and report to government, to inspect for covenants or arrangements that may be used by Telstra that have not been disclosed to the public, to initiate repair actions, (component and software replacements in Telstra for re standardization)

A legal department to define for government the non-compliance activities in Telstra re finance, commerce and regulations

To draft regulations proposal for a total digital transition

To allocate to Standards Australia committees, work schedules, to quickly adopt the international standards for digital telecommunications, television and interactive multi media to international and inter operable (seamless) standards. They then can be called up in regulations and used if necessary for legal disciplinary actions. There should be no need for local changes at all. These will be the documents as input for Universities to set up compliance testing

To install all necessary testing equipment with training to qualify engineers for the technologies within a university unit, to report to the commission, standards compliance and non-compliance of hardware and software for networks and consumer products

To ensure that all the public networks are under the engineering control and discipline the commission

To ensure that network operations exclude commercial operations that compete in markets (as for roads). (Special cases for government committed private networks for an interim period, strictly regulated)

To set up a research and engineering group for trials of new public service systems and processes and plan technical and commercial proposals

Plan and implement digital carriageways to service for consumer markets

Modify all electronic public carriageways systems to conform to international standards

To supervise all network engineering

The ABA / ACA and (Singapore equivalent) would report to the commission (further study)

Phase two (options): To evaluate whether Telstra Singtel could be one telecommunications company. (Telstra disposes of all commercial activities.)

Deleted: ¶

[i] ***The Hilmer Report***, *NCA 1992 - 1995*

[ii] ***Telstra Profits and Telstra share trading.***

Telstra is a most profitable technology foundation for Australians. Its book value is about $12 Billion. Its market capitalization is about $60 Billion. Telstra book value, 95cents per share. This is book value per Australian of about $600 each (600 shares at book value, $3000 at market capitalization). Telstra earns for each Australian, about 35 cents and pays about 30 (+ or-) cents dividend, a very high pay out ratio. Each Australian earns $180 per year from Telstra. Privatized, about a million shareholders, powerfully influenced by media cartel will control Telecommunications, technology policies and finances without legal constraints.

News Ltd dividends is about 0.3% of share capitalization. In spite of continued media reports that news Ltd profits are up by 23%, -26%, -24%, the results remain near a pittance, relative to the huge market capitalization. Telstra is about 5.5% share capitalization. Telecom Australia was even better.

Media will have the influence, not Australians, to use these assets for more media objectives, not efficient telecommunications objectives, that is, continuing what they have used their power over Government and markets to achieve already as explained in this document. The media should already be paying its correct rent and use of Telstra and Singtel. Foxtel is by far the largest user of Telsta and Singtel digital networks. The public are already subsidizing analogue and digital PayTV traffic (Foxtel channels) at least about 50:1 perhaps 100:1 - 20 Mbts each channel 24 hours, seven days per week throughout Australia.) This is blind man's bluff.

[iii] ***"Emerging market structures in the communications sector"***

– A report from the ACCC to Senator Alston, June 2003, clearly identifies the cartel.

[iv] ***PayTV***

Was originally a marketing system to offer choice, free TV with advertising or PayTV without. PayTV was to encourage the idea that quality productions would earn for producers a satisfactory income. Ted Turner proved that consumers would pay for quality. Monopolists however destroyed this consumer friendly option by bundling and advertising. Consumers no longer have any means to select quality. They have to take all or nothing, from the abusive monopolists.

[v] ***Hansard***

I was recently with five young businessmen for Sunday breakfast, discussing telecommunications amongst other subjects. Not one knew what Hansard was. Three had mobile phones but with different companies. Not one understood why his mobile phone could only work with another company or why he had to renew the phone to change companies or why some areas worked with one phone but not another!

[vi] ***CSIRO***

Have just started a new publication "SOLVE", - issue 2 Feb 05 – Good! Perhaps soon they may have their own digital TV program on cable and free to air!

[vii] ***The Management of Infrastructures***

The autobahns of Germany are an excellent example of efficient infrastructure management.

[viii] ***Media Cartel Objectives achieved***

"Pay TV …record 60.5 percent of viewing in first week of 2005…17.6 percent of all TV viewing…"
Financial Review, Friday 21st January, 05 P34.

[ix] ***See Telstra website***

For organization structure, this omits a strong engineering unit. Why?

[x] ***For over a decade***

Up to 2000, Australians purchased more shares in News Ltd than the whole of the mining and industrial markets together. Industry does not have the means of the media to promote its market capitalization.

[xi] ***Intangible assets***

In 1982 only 32% of the average company's asset base was comprised of intangible assets. By 2000 that figure had increased to over 70%. (IPRIA 15 Feb 2005) The public has a right to have this "risky" internally pre valued information always available per company.

[xii] ***"Inventing Money",*** *Nicholas Dunbar - John Wiley and Sons*

[xiii] ***OneTel***

"Huntleys' Shareholder" 19th edition, and the following trading history, and reported cash return to shareholders and trading pattern following from June1997 – June 2001.)

[xiv] ***Nuclear power in the world today***

"16% of world electricity is based on nuclear energy, that is equivalent to the total world's energy production in 1960"- Nuclear issues briefing paper 7 March 2004 -

[xv] ***Pluralism***

Repeatedly, the electronic industrials' responses to the continued Fairfax reporting and promotions, using economists to do, are never published.

[xvi]***Expensive and inconvenient***

To have any evening, all market options for an Australian family, to record one program while watching another, the home must have three separate cables expensively installed into his house, and around the home for a more enthusiastic user. For choice at any time, the consumer has to buy (or rent) three digital television receivers, one for Foxtel, and one for OptusVision and one receiver for free to air, each connected to its own exclusive cable. Then, the consumer has to buy a display for each digital receiver and speakers for each digital receiver, otherwise he has to unplug and re connect these components. But he has to connect his digital VCR, but to which one? (Or three VCR's one for each?) And then he has to connect his DVD recorder/player, some where, some how. Now for the household, who demands choice and flexible options for the family, this has to be repeated for each viewing area in the house! This is "economic rationalization" policy in practice.

[xvii] **Reg 3, 2, (d)**

[xviii] ***"Emerging market structures in the communications sector"***

– A report from the ACCC to Senator Alston, June 2003, clearly identifies the cartel.

[xix] ***Gregory Tassey, Senior Economist NIST, 2004***

Indicators of long term under investment in technology
"Persistent trade deficits"

The FCC announces a common digital platform, Announcement 2004

www.fcc.gov/cgb/emailservice.html

[xxi] ***Hansard*** *12th June 1997*

- *Government clearly recognised the waste and overbuild as far back as 1997 (see FCC p47)*

[xxii] ***ITU announcement,***

see also concerns RESOLUTION www.itu.int/osg/spu/resolutions/2002/res2.html

[xxiii] ***DVB Organization*** *–International standards*

Consumer Access "The DVB set of IP networking protocols will be network independent…"
www.dvb.org
ETSI – international technical standards www.etsi.org
See also European Broadcasting Union website.

[xxiv] ***A paper***

Was prepared between Philips and Telecom Australia to explain the attributes and expectations of the Telecom Australia's revolutionary new program. At the time the Australian leading electronics magazine was taken over by a Packer controlled company. When the paper was offered to the magazine for publication, the editor, Mr Rowe's response was "I don't think Mr Packer would want this published." The paper was published in leading technical publications in Europe.

[xxv] ***Governance and Institutions World Trade Report 2004***

"The notion of an institution embodies several elements: formal and informal rules of behaviour, ways and means of enforcing these rules, procedures for mediation of conflict, sanctions in the case of breach of the rules, and organizations supporting market transactions. Institutions are more or less developed depending on how well these different features operate. They can create or destroy incentives for individuals to engage in trade, invest in human and physical capital, and can bring about the incentives to engage in R&D and work effort."

[xxvi] ***Singtel Board of Management –***

See Singtel website for organization structure.

[xxvii] ***Hansard*** *- Thursday 12th June 1997.*

– Government aware of the reasons for underground plans to be built above ground.

[xxviii] ***Hansard*** *- ECITA 76 2002*

[xxix] ***Engineering Responsibilities***

It seems most unusual that Government allows the most important role in Australian's Telecommunications Institution, engineering, to be managed by a lawyer. Surely Government should not expect a lawyer to be in charge of the sophisticated and complex technical issues of broadband, Foxtel and Digital Media of Telsta and to be experienced with all engineering and technology issues. It is quite unfair to expect a lawyer to have a worldly appreciation of international research and developments, especially while these technologies are evolving in a very sophisticated way. The necessary interfaces are with the Board of Telstra, with Government and with international research and world technology forums, and the most essential and most important interface of all, with Australian Universities.

Government must be able to realize that this grave organizational error would be the prime reason and major cause why Telstra is neither "Fish nor Fowl" as commented by our Prime Minister.

Telecom Australia was one of the few most advanced in the world with the engineering experience for a total national optical fibre and a digital telecommunications system to international standards. It is quite understandable how "Market Forces" from outsiders could influence a lawyer. These have diverted Australia away from international leading technologies. Australia's future in telecommunications depends on the Government to now re establishes Australian engineering to world's best practices, by employing brilliant engineers not lawyers. The start now is for urgent support via Universities.

[xxx] ***Macquarie Communications Infrastructure Group (MCG)***

Listed August 2002, see their site for clear explanations of businesses.

[xxxi] ***ABNA*** *The consolidation of Australian Broadcasting Authority and the Australian Communications Commission.*

[xxxii] ***EEC European regulatory Policy***

– "Media plus 2001- 2005" http://europa.eu.int/scadplus/
"Television Without Frontiers"
"Community's audiovisual policy in the digital age"
"MEDIA Plus"

[xxxiii] ***"Higher Bandwidth Incentive Scheme"***

The citizens of Australia are expected to contribute to the costs of subsidizing private companies who collect from the "Higher Bandwidth Incentive Scheme". These are schemes to continue to be interruptions to a transition program. Post privatisation, this process will continue. Australians pay to expand services while shareholders profit.

This is technically and financially irrational and hardly democratic! Government should not be blindly offering incentives. Government should be providing the technical and financial specifications for seamless carriageways, as approved by an experienced engineering group within a university and then after all public input and tendering, select contractors to build the electronic carriageways. Without this, Government has no sound planning for efficient infrastructures. Otherwise, like the sale of Telstra, Australians may be having their money removed by what could be illegitimate means. We have utter chaos.

USA strictly regulates that private telecommunications companies must endeavour, at their costs to provide equality of services in remote areas. For this strict regulatory control, private companies are permitted to be the one monopoly in their service area. See FCC comments re continued legal costs and problems on their website, even with severe penalties and strict legislation. See xxxi below

[xxxiv] ***Irrational excuses.***

To claim that Government (the people) must sell Telstra to pay off debt is irrational when the earnings for Government from Telstra are three or four times book value per year. This would permit Telstra asset values to allow Government to borrow substantially more, or more easily pay off debt than without Telstra. To sell Telstra to build new infrastructures seems also conflicting with the Government continued processes of selling off infrastructures. Why would Government sell one of the most strategically critical catalysts for a digital transition program, while now corrupted for our nation, the most important infrastructures in most urgent need of repair to build another? If Telstra cannot raise capital while in Government hands, it must be relate high risk in private hands. (Bond, notes, more share issues, keeping Government the major shareholder are a few. In private hands Telstra is excellent financial and commercial value to the media cartel.

[xxxv] ***More propaganda***

To advantage monopolists – even "economic rationalists" should understand this as a false claim!

[xxxvi] ***See Stock exchange recent announcements***

Re Fairfax and News Ltd aligned arrangements to swap Media assets in New Zealand to further concentrate each other's media markets. This is in direct opposition to the Hilmer report intention. See Stock Exchange announcements for details (not published. Does this seem hypocritical from the Chairman of the Hilmer report.

[xxxvii] ***Hansard*** *– Thursday, 12th June 1997*

[xxxviii] ***High-speed***

Is the normal term but " speed" of electronic communications is relatively constant for low or high-speed services (throughput time of "products") without interruptions, one seventh of a second to circumnavigate the earth. The so-called "Low-speed" or slow services occur because of the delays, the waiting time at loading and redistribution points for "products" to be loaded onto and across the different transport systems (buffering and recoding). Markets need clear definitions and standards in order to remove the misinformation re network speed capacity and distance. High-speed" services soon become slow speed when networks become overloaded. New technologies provide for the setting of priorities.

[xxxix] ***Colin Powell, Chairman of FCC***

"In 1996, no one could have guessed that nearly a decade later the FCC would be on its fourth attempt to develop local competition rules that are lawful. We hope to end that here and now, for the market cannot possibly continue another day plagued by an ever-shifting regulatory foundation. We can only hope that the fourth time is the charm." RE: Unbundled Access to Network Elements (WC Docket No. 04-313); Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers (CC Docket No. 01-338) 2004

[xl] ***See "Weekend Australian Financial review", Jan 15 –16th 2005***

- *" The men who would unwire Australia". This is typical propaganda by media to completely confuse the public. " …Nationwide Unwired owns a slice of radio spectrum it bought from the Australian Government for $108 million in 2000, and it's using that spectrum to turn the tables on traditional internet companies such as Telstra by offering high-speed internet connections over air, with few of the costs normally associated with broadband internet rollout…." And goes on to say "transform Australia into one of the most connected countries in the world in less than a year". Unwired makes losses of over 5 cent per year on 35 cent share assets, not a sound return for a superfund that has confidence in Fairfax reporting.*

(See the IEEE site and the international standards for these well-developed technologies and severe technical constraints).

[xli] ***Manufacturing in America US Department of Commerce2004***

"We are in a highly competitive state with other countries that have taken education very seriously for a very long time – from small countries like Denmark which have been at the peak of pushing kids into the education world. China graduated close to 40 percent of engineers as undergraduates last year, our engineering graduated less than 6 percent. Now that should be a frightening thought for us all". – Phyllis Eisen of the National Association of Manufacturers, USA.

[xlii] ***NIES Charts and references***

"National Science Board, Indicators 2004, Chapter 6"see spectacular economic trends for economies supporting technology.

[xliii] ***Cross Control of media***

Attitude influences become powerful when the controlling influences extend across Foxtel 40 or 50 channels, a leading commercial TV station, leading daily and weekend newspapers and most leading magazines. This consequence is in stark contrast to a commitment to diversify the media.

[xliv] ***EEC Media Regulations****:* http://www.irmo.hr/culture/conf/medconf()02/Medi_Diversity.pdf

[xlv] ***EEC New Directions re Multimedia***

"Programme to encourage the development, distribution and promotion of European works (Media Plus)", 1st. Jan 2001- 2005"

[xlvi] ***Pluralism*** *When media, re letters to the editor, filter for publication.*

[xlvii] ***Ownership***

It was once a requirement that all media clearly define the real owners. Today with the complex cross ownership of media, the real owners hide their identity by publishing under subsidiaries or subsidiaries of subsidiaries. It is almost impossible to read a newspaper or magazine and understand who is involved with the newspapers, radio or television investments or media release. Free speech is essential but also equally essential are the owners, from top to bottom, of the printed or spoken word or movies or pictures etc distributing the free speech.

[xlviii] **Cable modems**

The cable system will manage about 250 –300 channels, each with 3 or 4 TV programs and several radio programs and thousand of other services. The constraint for BigPond is the modem and management system, not the cable. The BigPond service is only employing a fraction of the same cable used for Foxtel analogue and digital TV programs. The total cable is virtually committed to Foxtel! Media continually and repeatedly exploit as propaganda that TV and telecommunications are two separate cable systems. This is false. The source of this continuous misinformation should be explored (for example SMH 19-20 Feb 2005 Page 47.)

[xlix] ***One example***

A few years ago a new local quality paper in my district was forced to close after two majors collaborated to substantially reduce advertising prices only in the district of the new local paper. After closure the assailants, still with the political and promiscuous shallow

commercial quality and little local community interest copied the new style of local news and colour quality advertising re the property market. Advertising prices rose to higher levels after the new paper was forced to close. Market forces, not government authority, ruled for the outcome.

[l] ***Cybercrime sharpshooter***

"Federal agent Kevin Zuccato is banking on his overseas credentials to help rein in cybercrime syndicates that are using Australia as a new stamping ground."

AFR 8th February 2005, page 36.

The AFR have already been informed over years, several times, how this problem can be overcome but never published. It is more profitable for the media to make crime sensational rather than promote solutions to problems. Telstra reformed allows Mr Zuccato policing to be straightforward.

[li] ***Hansard 27th June 2001***,

Another of the many references that show government awareness of serious problems in Australia. Most using the concept of "Market Forces" for the continued tolerance of these adverse trends.

[lii] ***The Act*** *Part 3 Objects, (2) ,(i)*

[liii] ***Excerpt from Court Summary Telstra v Seven FCA1160 18th of Aug 2000***.

"…Declaration of the subscription television service enables service providers to reach end users in order to deliver a wider range of services than currently available, and reduces the need for full duplication of communications networks…" Seven lost!

[liv] ***The World Bank warns*** *of the near irreversible damage to consumer markets by the privatisation of public infrastructures, once under the control of market power. (World Bank Development Report, 2005)*

[lv] ***World Bank, World Development Report 2005***

– Many Governments have not yet taken advantages the opportunities of technology change. Page 130.

[lvi] ***Communications Update***:

December 2003, Issue 165 - A later version was not available in time for this input Reference to Media ownership report.

[lvii] ***Financial review*** *– 1st October, 2004*

[lviii] ***Paul Budde*** *News Letter, 12th October, 2004*