Paradoxically, the age of the Information Revolution, which should have been an instrument of personal liberation and an explosion of creativity, has been characterised by domination of public policy by managerialism, replacement of ‘the public good’ by ‘private benefit’, the decline of sustained critical debate on issues leading to gross oversimplification, the relentless dumbing down of mass media, linked with the cult of celebrity, substance abuse and retreat into the realm of the personal, and the rise of fundamentalism and an assault on reason. The Knowledge Revolution ought to have been a countervailing force: in practice it has been the vector of change.

Balancing instrumentalism with values, uniformity with individuality, certainty with uncertainty, closed and open systems, the material and the intangible, encouraging creativity, intellectual energy and a sense of the numinous are all major challenges. How many of them are we working on?

I was grateful for the invitation to deliver a Dean’s Lecture but I will vary its advertised title a little, by changing the order of the elements: first, defining Education, then discussing Changes in Society, Values, Equity and Creativity.

Education

Education is the largest distinct entity in Australian public life, with the heaviest public investment, the largest number of people involved, the biggest collection of plant, buildings and equipment, and by far the
largest number of professionals, far ahead of medical practitioners or lawyers. Does this make education, teachers and academics a powerful force, say, compared to doctors and lawyers, or even scientists? It does not. Considering the size of the public education sector, its influence is only of second or third order magnitude, certainly far less than the power of the private education sector. Remember Archimedes and his lever: to exercise leverage, there must be a fulcrum.

Is Education (like Health, Information, Law or Sport) essentially a business, and are all its KPIs certain and predictable? How do we measure creativity or explore the meaning of life? In the Western world there is increasing debate about alternative models of education, in which the first is managerial, instrumental, rigid, formulaic, values free, dependent on measurement and with predictable outcomes, while the second is philosophical, creative, open, speculative, imaginative, values laden, hard to measure and with uncertain outcomes.

This distinction dates from ancient Greece. I quote some elegant paragraphs from a recent paper by Dr Ralph Townsend, an expatriate Australian, formerly Headmaster of Sydney Grammar School, now Headmaster of Winchester College:

One of the great literary quarrels of antiquity was that between rhetoric and philosophy, pedagogy and education. It began in the fourth century BCE, when Plato laid into the great rhetoricians of the previous century and their claims that rhetoric was the highest art. On the contrary, claimed Plato, philosophy was the only path to true knowledge, and the only proper education for the young. Although he never mentions him, Plato is attacking his contemporary Isocrates, whose rival educational system was based on rhetoric for the purposes of public life. Aristotle continued the feud. Thus a legacy was established of two competing forms of education…

The general trend of Western educational ideas in the last century has moved closer and closer to Isocrates and further away from Plato, as we have thought increasingly of education as a “process”. The very use of the word pedagogy instead of education symbolises this movement, in which education is at the service of government and its power structures. The Isocrateans measure pedagogy by its usefulness in relation to the values of social control, and they seek for the most part to show how elites and authorities have manipulated individuals through their control of the pedagogic process…

The philosophical ideal, so often and so paradoxically enshrined in a form of Platonism, concerns the passionate search for ultimate truth, not for temporal power. So, to the philosopher, education is a form of inquiry conducted together by teacher and pupil, not indoctrination beaten into the bored schoolchild by an empowered pedagogue. If modern pedagogy takes over from education, we shall
indeed create a race of slaves, for the word *pedagogy* comes from the Greek meaning “the leading of the child/slave”, whereas *education* is the “drawing out” of the talents of the individual to create a fulfilled personality. That is why, in the end, Isocratean pedagogy is incompatible with freedom, whereas Platonic philosophy, with its emphasis on the truth wherever it may lead, is the path to freedom. As the experience of modern England has shown, it is a very dangerous thing for academics to praise their rulers or to seek to be useful to them.*

In the 19th and early 20th Centuries, after the introduction of mass education (at least to Primary level) State Schools were models of industrial era process work, with rule by the clock, uniform delivery, pupils as raw material, teachers as process workers, and schools looking like factories.

The period between 1870 and 1900 was marked by a major shift in public policy in Europe, North America, Japan, the Australian colonies and New Zealand in which the principle of universal, compulsory, primary education – including for girls – was adopted, many Education Acts were enacted in the 1870s. Victoria’s Education Act 1872 was enacted in the same year that similar acts were carried for Scotland, Germany, Japan and British Columbia. (Tasmania came first in 1868 and New South Wales followed on with its Public Instruction Act in 1880). Universal primary education was closely linked with the introduction of manhood suffrage for colonial elections – and women gained the vote nationally in Australia in 1904.

Public education had a high priority in Victoria in decades after the Gold Rush when the colony was both radical and rich. The Education Act (1872), providing for free, secular and compulsory education, was adopted after a lengthy debate of unusually high quality.

The Minister who introduced the Act, James Wilberforce Stephen (1822-1881), was the son of Sir George Stephen, QC (1794-1879), a barrister who had been active in the anti-slavery campaign, was a friend of its leader William Wilberforce and migrated to Melbourne with his son.

J. Wilberforce Stephen, educated at St Johns’ College, Cambridge, was deeply impressed by the work of Matthew Arnold, famous as a poet and critic, but also an inspector of schools in England and quoted him eight times in his speech. Stephen emphasised that the ‘three cardinal

points’ of the proposed Act were that State education should be secular, compulsory and free, in that order. He stated: ‘Perhaps there is more universal feeling in favour of secular education than of either of the other two points.’ He regarded the provisions for compulsory education as ‘a new experiment in this country. I believe that it is altogether a new experiment as regards the British race…I trust that we shall in this…set an example to our progenitors in England.’

But there was a striking omission in the 1872 Act, the failure to define ‘Education’ – and this deficiency remains in the Education and Training Act (2006).

‘School age’ was defined as ‘not less than six years nor more than fifteen years’. The upper figure is surprising since the State system only provided primary schools, many of them one teacher schools, supplemented by pupil-teacher schools, until early in the 20th Century. Secondary education was pioneered in Victoria by church schools.

The liberal social democratic tradition which evolved in Australia and New Zealand a century ago was followed up in Britain, to a degree, and Scandinavia, but less so in North America, even less in Japan. There was a strong political commitment to public education and public health and social welfare, led in Melbourne by Alfred Deakin and his followers.

Historically, State Schools produced privates and NCOs in Australia’s industrial army, workers and workers’ wives. When I was at High School relatively few of my age cohort spent much time in secondary school and even fewer in tertiary education, although some became apprentices. So, there was a direct transition from school to work, if they were lucky, at fourteen, then a fifty year stretch in paid employment, followed by mandatory retirement at sixty-five, then death within five to seven years later.

School must prepare young people not only for work, even more for life, familial, social, cultural, political, aesthetic, sport and play. In my book Sleepers, Wake! (1982) I distinguished between ‘education for outer life’, the world of work and economic relations, a sphere which is likely to contract, and ‘education for inner life’, which is likely to expand.

I pointed out that life chances for children could be predicted to a high degree of accuracy by answers to three questions: (1) Where do you live? (2) What school do you go to? (3) What do your parents do? It is still
largely true, although after zoning ended pupils had more choice and some travelled long distances to school.

In 1942 Eleanor Roosevelt wrote: ‘A democratic form of government, a democratic way of life, presupposes free public education over a long period; it presupposes also an education for personal responsibility that too often is neglected.’ The Canadian thinker John Ralston Saul defined ‘Public Education’ as ‘The single most important element in the maintenance of a democratic system.’

Many of us believed, and still continue to hope, that public education would be an instrument for personal and societal transformation. However, education often seems to entrench or reinforce existing abilities, or disabilities, advantages or disadvantages. There are surprising exceptions: some recently arrived children from disadvantaged countries overcome early difficulties and score exceptionally well. Research suggests that a strong commitment to education by parents makes a major difference with new arrivals, although this diminishes over time. Many boys from English speaking backgrounds, who ought to enjoy at least a linguistic advantage, find schooling either frustrating or irrelevant, and drop out. Class and regional factors may have serious impacts.

Australia used to have a selective split-level education system which perpetuated existing social, ethnic, class and regional divisions instead of eliminating them which was the liberal (small ‘l’) hope for universal education. Now we have a mass split-level system, but the divisions largely remain. In Britain only 7 per cent of students are outside Government schools, while in Australia the figure is 33 per cent.

From November 2001 until August 2005 I chaired the Victorian Schools Innovation Commission, theoretically a part-time job, almost full-time in practice. I was deeply conscious that there was no equivalent body to VSIC in any other State or Territory, or nationally.

VSIC was appointed by Government but in structure it was a company limited by guarantee. About 60 per cent of its funding came from the State Budget, 40 per cent from philanthropic trusts. VSIC was essentially an independent think tank, a mixture of insiders and outsiders which examined the big questions in education (a k a life).

VSIC included some remarkable talents including John Clarke, writer and satirist, Julian Burnside, QC, Sharan Burrow, President of the ACTU, Ellen Koshland, head of the Education Foundation, David Stokes, former
Dean of Science at Deakin University, Philip Bullock, CEO of IBM Australia, the banker Alister Maitland to name only some. We also had an inspiring CEO in Vivienne White and dedicated staff.

VSIC lived in a state of creative tension in no-person’s land, somewhere between the Minister of Education and Training, who appointed us, and the Department of Education and Training. We had to be careful about where the Commission positioned itself – if we were too remote, out of sight from the Department, our work could appear theoretical or irrelevant and be ignored. But being too close to the Department raised the possibility of being squashed, like making love with an elephant.

I thought that the best illustration of VSIC’s role was that of the yellow billed oxpecker (*Buphagus africanus*), the companion bird of the rhino which provides specialist assistance and advice, with only a tiny fraction of the rhino’s resources and muscle.
There was a deep philosophical division between VSIC and DE&T. At VSIC, we argued for an open, pluralistic, questioning model in education in the Platonic tradition in which ideas were important and outcomes were uncertain. DE&T took an Isocratean instrumentalist, rigid, determinist approach in which all outcomes were known, and formulae could be applied to specific problems. DE&T ran some danger of becoming an ‘ideas free’ environment. DE&T’s corporate culture, although not as bad as the Commonwealth Department of Immigration, tends to be defensive and inward looking, uneasy about ideas, debate or controversy. It only seeks outside advice on contract from consultants and where outcomes are predictable (and controllable).

We operated in the spirit of Francis Bacon (the lawyer, scientist and philosopher, not the painter): ‘If a man [and one should now add ‘woman’] will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts he shall end in certainties.’ (The Advancement of Learning, I, v, 8)

One of VSIC’s last contributions was prepare a long submission to the Review of Victoria’s Education Acts. Since Education Acts, generally, not just Victoria’s, do not define Education, I decided to have a try. My definition, adopted by VSIC, is long but comprehensive.

**Education is a combination of processes, both formal and informal, that stimulate the growth of mental capacity, influence the potential of humans, aim at individual development, understanding, and independence, encompass the teaching of specific skills and nurture knowledge, judgment, values and wisdom, transmit culture and social adaptation, but also encourage exploration, self discovery, using time effectively and learning for a lifetime, strengthening self-image, and encouraging creativity, balance, open-mindedness, questioning, respect for others and humane common sense.**

Our definition of ‘Education’ may have been the final nail in VSIC’s coffin, because it did not pay enough homage to instrumentalism, and was too open, too speculative, too Platonic. I may also have contributed to VSIC’s problems by giving books to the Minister and the Secretary and proposing to discuss education with them. We were never able to persuade the Secretary to attend a VSIC meeting and I thought he developed quite a hunted look when our paths crossed.
The 2006 Education and Training Act was a consolidation which incorporated the 1872 parent Act, and 106 amending and supplementary Acts. After 133 years, with a Parliament containing many graduates, one might have expected that the debate would have been of higher quality than in 1872 but Hansard does not suggest it. Not one word from the Parliamentary debate attracted any media coverage, and if there are new ideas in the Act they are hard to find.

It was probably inevitable that the Department of Education & Training would see itself as threatened by VSIC. DE&T is resource rich, but conceptually weak, rather suspicious of the world outside the silo. I was amazed by the degree of resistance to the idea of a think tank which could offer an independent, informed, critical perspective, and be open, encouraging and original in its approach. DE&T is strong in management, weak in strategic thinking, creativity or imagination. The highest levels seemed to lack even elementary curiosity.

DE&T has failed to address some major problems in Victorian Education:

(i) pre-schooling is part of Victoria’s Welfare system, not part of Education, at precisely the time when children are most susceptible to learning,
(ii) participation in State Schools is strikingly lower than the national average, due to the phenomenon of ‘middle class flight’,
(iii) that while values are taught, and taught well, in Victorian State Schools, DE&T is in danger of losing the propaganda battle, due to its defensiveness, and
(iv) fully examining issues of individual v. mass delivery.

VSIC’s main purpose was to argue for the importance of public education in which a majority of young people are educated, to emphasise the need for it to have the highest priority in public funding, to recognise its vital role in maintaining cultural and social cohesion, to draw attention to areas of excellence within the system, and do all we can to discourage the ‘middle class flight’, or to see public education as a residual or welfare system.

While our primary role was to feed into the Victorian State School system, we hoped that our work would have a national significance, and be useful to the independent and Catholic systems as well.

In February 2004 I represented VSIC at a large international conference, ‘Crossing Boundaries’, held in Reggio Emilia, in the Italian region of
Emilia Romagna. Reggio Emilia’s experiment in pre-school and toddler education was initiated after World War II by Loris Malaguzzi (1920-1994), a charismatic psychologist, teacher, organiser and dramatist, politically on the Left. Malaguzzi was quoted as describing knowledge as ‘a tangle of spaghetti’, and I could identify with that. The Reggio Emilia schools were extremely impressive, suggesting that very small children were capable of surprisingly high levels of abstract reasoning and I learned a great deal.

VSIC was put to sleep in 2005 because its appropriation of $1.4 million in an Education Budget of $7 billion was considered to be too high a proportion (0.02 per cent), especially when we kept raising questions that the Department did not want to think about.

**Changes in Society**

A century ago, schools might have provided at least 50 per cent of all the information about the world that young people received, reinforced by contact, in and out of class, with the peer group, and the experience of sport. Home and church/Sunday school would probably have had more collective input than libraries, books, newspapers or correspondence. Schools then set the information agenda, although that term was not used, while home and church set the moral agenda.

Sixty years ago, radio, film, gramophones, telephones and increased access to motor vehicles began to break down the centrality of the static model of traditional school-based education.

In the traditional model, now breaking down, pupils sat in rows, eyes to the front, with teachers expecting a uniform response, with penalties for arriving late or failing to finish on time. I have called this ‘chronocracy’, rule by the clock. Lessons began or ended, on the dot, with the bell or siren and it didn’t matter if the pupil was about to discover the value of pi (π) or understand e = mc² or the meaning of life, when the lesson ended there was an arbitrary (but inevitable) transition to the next subject, the next teacher, the next room, the next imposition of external authority. We now have the technical capacity to move away from the centralised, Benthamite factory model in which one size fits all.

The computer room, cafeteria, library, workshop, gymnasium, music room, rehearsal hall may become far more valuable than the traditional classroom in which pupils are able to determine their own pathway at their own pace. Should we be aiming at mass learning, or individual
learning? How do we make some subjects more exciting for teachers and students? These were not issues that DE&T felt comfortable with.

Now the cultural agenda is set electronically by television and radio, film, videos, CDs, computers and computer games, reinforced by enhanced peer group pressure. The impact of school has reduced and church influence, even with Catholics, has virtually dropped off the screen. Books, newspapers and magazines have a declining share of the action. Parents and family are part of the resistance, with reduced fight-back capacity.

There is a widening gap between (i) classroom experience, often static and boring, where rigour and rigidity used to be confused, and (ii) experience of the world mediated by television, video, internet and radio, generally non-demanding and aimed at instant gratification. Drugs, both legal and illegal, have become important in extending (or distorting) sensory experience. Travel, access to cars and contraception also alter patterns of experience and, hence, learning.

For decades, politics has been reported as a subset of the entertainment industry, in which it is assumed that the audience looks for instant responses and suffers from short-term memory loss. Politics is treated as a sporting contest, with its violence, personality clashes, tribalism and quick outcomes. An alternative model is politics as theatre or drama. The besetting fault of much media reporting is trivialisation, exaggerated stereotyping, playing off personalities, and a general ‘dumbing down’. This encourages the view that there is no point in raising serious issues months or years before an election. This has the effect of reinforcing the status quo, strengthening the Government’s grip on the agenda – and I mean any Government, State or Federal.

It is ironic that the United States, with the world’s greatest universities and an unequalled record of scientific achievement, should have an enormous anti-science constituency. Nearly 50 per cent of Americans consider Genesis to be the final authority on the creation of the world, a significant minority are doubtful about a heliocentric universe, 40 per cent believe that angels exist and 75 per cent reject Darwin’s theory of evolution.

When writing Sleepers, Wake! in 1979-81, I worried about the implications of adopting economics as the dominant intellectual paradigm, and its impact on non-material values, as if nothing else mattered. Inevitably, as the public domain contracted, education, health and child care were regarded as commodities to be traded rather than elements of the public
good, universities fell into the hands of accountants and auditors, research was judged by the potential for economic return and in the arts best sellers displaced the masterpiece. Language became deformed. Citizens, passengers, patients, patrons, audiences, taxpayers, even students, all became ‘customers’ or ‘clients’ ['guests’ if you travel Virgin] as if the trading nexus was the most important defining element in life. Values were commercialised, all with a dollar equivalent. Essentially, the ‘nation-state’ was transformed into a ‘market-state’.

We live in the age of the Information Revolution, but it is also the age of the cult of management. Education (like Health, Sport, the Environment, Law, even Politics) is often treated as a subset of management, with appeals to naked self interest and protecting the bottom line. At its most brutal the argument was put that there were no health, education, transport, environment, or media problems, only management problems: get the management right, and all the other problems would disappear. Coupled with the managerial dogma was the reluctance of senior officials to give what used to be called ‘frank and fearless’ advice – and replacing it with what is now called ‘a whole of government’ approach. This is not telling Ministers what they want to hear – it is actually far worse, a pernicious form of spin doctoring which says: ‘Minister, there are matters on which it is better that you not be informed about, which enables you to engage in plausible deniability.’

Paradoxically, the age of the Information Revolution, which should have been an instrument of personal liberation and an explosion of creativity, has been characterised by domination of public policy by managerialism, replacement of ‘the public good’ by ‘private benefit’, the decline of sustained critical debate on issues leading to gross oversimplification, the relentless ‘dumbing down’ of mass media, linked with the cult of celebrity, substance abuse and retreat into the realm of the personal, and the rise of fundamentalism and an assault on reason. The Knowledge Revolution ought to have been a countervailing force: in practice it has been the vector of change.

The cult of management became a dominant factor in public life, exactly as James Burnham had predicted in The Managerial Revolution (1941), a book long ahead of its time. In Britain in the Thatcher era, and in Australia, after 1983, there was a growing conviction that relying on specialist knowledge and experience might create serious distortions in policy-making, and that generic managers, usually accountants, or economists, would provide a more detached view. As a result, expertise was fragmented, otherwise, health specialists would push health issues,
educators, educators, scientists, education, and so on. It is striking that of eight current Directors-General/CEOs of Education in Australia, judging from their Who’s Who entries, only two (in the ACT and NT) admit to having had any teaching experience or qualifications.

Departments contract out important elements of their core business to consultants. A consultant has been defined as somebody to whom you lend your watch, then ask him to tell you the time. Consultants, eager for repeat business, provide government with exactly the answers that they want to receive. Lobbyists, many of them former politicians or bureaucrats, are part of the decision-making inner circle.

Generic managers promoted the use of ‘management-speak’, a coded alternative to natural language, only understood by insiders, exactly as George Orwell had predicted. There was a sustained attack on professional (in distinct to managerial) expertise, e.g. hollowing out of Arab speakers or Middle East experts in the CIA, or people with agricultural expertise or experience in the British Ministry of Agriculture.

The managerial revolution involves a covert attack on democratic processes because many important decisions are made without public debate, community knowledge or parliamentary scrutiny. The process of ‘public private partnerships’, known by the acronym ‘PPP’, has been widely adopted in the UK and Australia and involves a substantial impact on public policy with a long term cost to the community. However, the process is far from transparent.

As I was concluding my autobiography, A Thinking Reed in 2005, I felt deeply disturbed by the cumulative effect of serious changes in the political process since 1979, coincidentally just as the Knowledge Revolution was taking off. Reason seemed to have been abandoned in high public policy, leadership failed, political parties gave up even a pretence of commitment to principle, the politics of greed was morally bankrupt. The political process has been deformed, Parliaments have lost much of their moral authority, the public service has been increasingly politicised, most universities have become trading corporations, the media is preoccupied with infotainment, while lobbying and use of consultants ensures that vested interest is more influential than community interest. Public debate is dominated by the black arts of ‘spin’, so that ‘framing’ the debate becomes central. Appeals to emotion, especially fear and gullibility, and to immediate economic or cultural self-interest (‘wedge politics’) are exploited cynically and ruthlessly. Establishing the truth of a complex proposition (evolution, stem cell
research, climate change, going to war in Iraq, Industrial Relations changes) is less significant than how simple arguments, essentially propaganda, can be sold. Unilateralism had failed, terrorism was spreading and the great problems of poverty, disease, famine and climate change were ignored. The year 2001, when politics dropped out of politics and paranoia broke the spirit of political Oppositions, contributed to my sense of exile.

The significant increase in longevity in the West and Japan since World War II is having profound social, economic, political and educational implications, barely addressed by policy makers. For the first time in human history, retirement has become a definite and significant long-term period in most people’s lives. Most people who retire between fifty and sixty can expect probably thirty years of active life, and many more than forty. Access to information will be increasingly important to older Australians, as part of a commitment to life-long education. This is precisely when a comprehensive definition of Education is needed.

Through Google and other powerful search engines we have instant access to what would have seemed like unimaginable richness to earlier generations – but I am doubtful if the promise has been delivered.

An age of technological transformation and scientific revolution ought to mean that we are more rational, analytical, reflective and constructive in tackling major problems than our predecessors. Right? Well, wrong actually. Current citizens are the best educated in Australian history, and the most technologically sophisticated. Is this reflected in our politics, public discourse and media? No, it is not.

Our public discourse, such as it is, and our democratic ethos, rests on the assumption of a common memory, a common context, shared understanding and experience. Sometimes my confidence in this is shaken.

When journalists, responding to John Howard’s suggestion that migrants seeking Australian citizenship should be able to answer basic questions on our history, politicians, including Julie Bishop and Morris Iemma, have been manifestly uncomfortable when quizzed about our history.

**Values and Equity (including Time Management)**
I hoped that the Information Revolution would be profoundly liberating and would lead to an explosive increase in creativity and a vast improvement in what I call ‘labour/time-use value’. I am still waiting.

Friedrich Engels, Karl Marx’ collaborator, argued that the clock, not the steam engine, was the central tool of the Industrial Revolution. Imposing discipline by managers in the factory system was essential to Henry Ford’s model of repetitive mass production, where millions worked at producing identical products at a central place. The organisation of factories, schools, public transport, telephones and telegraph depended on the clock.

Sleepers identified the problem of redefining ‘labour/time-use value’, and argued that it should be on the political agenda and made part of education practice. Time budgetting and self-management of time are central to personal development, from infancy on. Time is the medium in which we live: the only irreplaceable resource. Using it effectively involves setting priorities. But there is a paradox: time management, historically, has been an instrument of external control by a superior (e.g. parent, teacher or employer). We find it virtually impossible to impute a value to our own time use.

Individual time management should be liberating. In practice, many people feel a psychological inhibition because of self-doubt about judgment. Coming to grips with time management is central to tackling the problems of boredom, alienation, road rage, depression, drug dependence and suicide, which have very high incidence among Australian young people. Even more feel uneasy about the passage of time and have a desperate need to desensitise it, ‘killing time’ by alcohol and drug abuse, especially smoking, although Australia has been strikingly successful in reducing addiction. Mobile telephony, video and internet games, web-surfing and television become major activity substitutes.

Capacity to manage time is the major distinction between those who exercise power and those on whom it is imposed – the ‘Who/Whom?’ question. Education should encourage development and redefinition of a new sense of ‘labour/time-use value’.

Marx quoted from a pamphlet published in 1821 by an anonymous English radical: ‘The first indication of real national wealth and prosperity is that people can work less…Wealth is liberty – liberty to seek recreation – liberty to enjoy life – liberty to improve the mind: it is disposable time [and Marx italicised the words] and nothing more’. This is an elitist view; but it takes a
very optimistic view of the human condition. Nearly two centuries later we have not yet grasped the power of the idea.

If it was a good thing in the 19th Century for weekly working hours to be reduced from 80 to 60, and in the first half of the 20th Century from 60 to 40, would it be good or bad to have a significant reduction in the 21st Century (although to most of us, this sounds like an unlikely prospect?) For many people, perhaps most, the answer would be ‘bad’, because if the next step was reduction to 10 or 5 hours (even with income maintenance), then the whole structure of order, discipline and authority starts to look ridiculous. That is why people want to ‘kill time’, that is, desensitise themselves from the threat of time when they see few opportunities to use it creatively or imaginatively – hence substance abuse, gambling and daytime television.

We overvalue security and order and undervalue freedom and experience. Hence employment is seen as predicated on the creation of more employers: more masters will mean more servants. The strong psychological appeal of 20th century feudalism is self-evident. Workers willingly accept externally imposed goals and are anxious about internally generated ones. All too often, our value is set by what an employer pays us: if dismissed, our time use value falls towards zero.

In the ‘Information Age’ the nexus between the value of labour inputs and the total value of outputs will break down irretrievably. We should be evolving new attitudes to time use and ways of conferring value on it. Developing a philosophy of ‘labour/time use value’ ought to be high on the public agenda. I hope it will be. We will continue treating symptoms rather than causes.

We should be concerned about how conflict between State and non-State systems can reinforce the fragmentation and stratification of society, all in the name of ‘choice’. The State system’s ‘open door’ schools presuppose a society based on co-operation, emphasising mutuality of interest, avoiding segmentation or stratification. ‘Gated’ schools recognise, accept and build on differentiation, competition, segmentation or stratification. The two systems are in a continuum. Even where parents have attended State Schools themselves, once they choose to send their children to private schools they generally cease to be effective advocates for the State system. Disturbingly, some DE&T officials had voted with their feet in choosing private schools for their offspring. Often they say: ‘I believe in the State system, but Toby and Miranda have special needs, so we send them to private schools’. Toby and Miranda have already left.
Will Jason and Kylie follow? If the State system broke down, the impact on social cohesion would be serious. The strength of a large, comprehensive State system is that it permits/encourages diversity inside school and social cohesion outside it, rather than cohesion inside school and diversity (often harsh or fragmented) outside it.

The businessman John Elliott used to threaten one of his daughters: ‘If you don’t behave, I’ll send you to a high school’. The threat apparently worked. As the State system strengthens, stratification/segmentation in society will reduce: but if the State system weakens, stratification/segmentation in society must increase. As a society, we ought to be courageous enough to acknowledge and discuss these issues. In 2006, John Howard expressed satisfaction that State school enrolments had fallen by 22 per cent in his decade as Prime Minister. There was a growing risk that State education in Australia would be seen as a residual system for the poor, not the system of choice. A study in 2004 by the Sydney Morning Herald indicated that more than 70 per cent of parents of state school pupils would opt out if they could afford it, which would be a serious blow to social cohesion.

The particular attraction of private education (apart from its unspoken appeal to social mobility, ‘getting on’ and a reinforcement of social stratification) is asserted to be its commitment to ‘values’, and this is inevitably assumed to be associated with church schools, whether the Catholic system, independent schools or the rapidly growing number of new faith-based schools. The critical assumption, more implied than asserted, is that State education is secular, materialistic, instrumental and uniform, aimed at the lowest common denominator, rather than recognising and encouraging individual capacity and diversity. John Howard attacked State schools as being ‘too politically correct’ and ‘values-free’.

This conceptualisation, that private schools promote values while public schools are weak on values, is based on a misappropriation of the word ‘values’. When private school advocates talk about values, they often refer to a circumscribed set of them: conformity, tradition, security and social power. The public school system promotes values too, but of a different kind, including equality, justice, diversity and tolerance. It is hypocritical not to recognise the distinction between what are in effect ‘gated’ schools, able to exclude potential students doctrinally and financially, and ‘open door’ schools which are community based, lacking the power (or desire) to exclude certain categories.
I welcome public discourse about ‘values’. It is essential not to confuse ‘values’ with ‘value’, especially with a $ sign in front of it. Often it is hard to identify non economic values – and careful analysis of media reporting provides a rather unflattering view of Australia – harshly materialist, narrowly self-interested, obsessively short termist, eternally self-congratulatory. The environment is seen as an economic resource, with forests seen as woodchips on stumps, the ocean as a dumping ground or a quarry and threats to soil and water had a low political priority for decades. The Australian Broadcasting Corporation has been under sustained attack both from within and outside, deprived of resources, accused of promoting diversity in public discourse and not treating content as commodity. (The BBC has been under similar attack in the UK).

The values that I would like to see promoted are

- Compassion
- Generosity
- Global perspective
- Openness
- Reconciliation
- Creativity
- Imagination
- Relieving gender, race and class conflicts
- Intellectual rigour
- Taking a longer term perspective
- Handling fear in a positive, constructive way
- Courage
- Independent judgment.

These are the building blocks for a just and compassionate society.

A major problem for educators is finding a balance between particular/local/concrete/immediate/familiar factors and values and general/universal/abstract/timeless/unknown ones. One educational model, with the goals of ‘relevance’, and ‘job training’, reinforces the experience of things seen, heard and felt every day. The other pursues ideas and experiences that are out of everyday knowledge, or even imagination. But we need both models, and must promote dynamic interaction between them.

Training is often (but need not be) short-term, hierarchical and work centred; education ought to be for personal development and competence.
At its worst, emphasis on the local can lead to an oppressive narrowness—domination by locality and temporality (here and now), reinforcement of tribal values, prejudices or tradition: ‘there is only one way to do things, and that’s the way we do them around here’, and to an essentially instrumental view of life.

The appeal of the general is the assertion of universal values and infinitely varied experiences: we can learn from each other. Unfortunately the ‘big picture’ is so diverse that it may lead to a very slight sampling of a smorgasbord of human experience. The constant tensions—centre v. periphery, convergence v. divergence—can be destructive if specialisation and a sense of personal competence appear to be out of reach.

Educators have the choice of restricting the syllabus to a few core subjects and teaching them in depth (if they are up to it), or broadening it to provide what is, inevitably, a superficial grasp of a range of subjects. Is it possible to become competent in humanities + science + foreign languages + mathematics + literature/arts/music + social sciences + media studies + economics + understanding how processes work + philosophy + religion/ethics within the limits of 30 contact hours each week for 40 weeks of the year? Apparently not. When should specialisation begin? Without it there can be no mastery: with it may be lack of understanding of other areas of knowledge and a deep division between science and the humanities. If foreign languages are not taught in primary schools, is it too late in secondary? Fear of failure leads students to avoid difficult and complex subjects. Young Americans, British and Australians are easily discouraged. Asians are not.

Balancing instrumentalism with values, uniformity with individuality, certainty with uncertainty, closed and open systems, the material and the intangible, encouraging creativity, intellectual energy and a sense of the numinous are all major challenges. How many of them are we working on?

I have worked out a list—by no means exhaustive—of ‘Big Ideas’ in education that we should be debating nationally. I would like to see Julie Bishop take them up:

1. When should formal education begin? Early, as in Reggio Emilia, or late, as in Scandinavia?
2. Should the teacher be transmission agent, a resource or a co-researcher?

3. Should schools maintain the Industrial Revolution model of uniform, synchronised, doses of instruction, or should the emphasis be on autonomous/ individualised learning?

4. Can schools only be organised around a timetable reflecting collective learning?

5. How should students be assisted to determine their own time use value – a central factor in identity, autonomy and individual development? Is autonomous time management central to tackling the problems of drugs, alienation, depression and passivity?

6. How should we encourage and develop the non-economic part of education i.e. other than individuals as economic units (producers and consumers)?

7. Are literacy and numeracy the only factors to be measured in education? Does real education begin where measurement ends?

8. How can we measure creativity, and distinguish it from innovation?

9. How do we encourage the development of aesthetics/ feelings/ physical and emotional factors in education?

10. What is the relationship between education and equity? Does more education inevitably lead to widening the gap between rich and poor?

11. Is education essentially a sub-set of management? or a business?

12. Is Education a closed or open system? Are the goals certain or uncertain?

13. Should thinking about education be essentially conducted within the silo, with teachers talking to teachers, administrators talking to administrators, or should outside contributions be welcomed?

14. Should we emphasise uniformity or individuality?
15. What is the role of ideas and Platonic learning in education?

**Creativity**

I would like to see more emphasis on creativity, especially music and the arts, in our intellectual life. Creativity enables individuals to maintain a sense of control and wellbeing, through a process of resolving difficulty rather than by disengaging from it. The importance of creative thinking in addressing social and environmental challenges facing local and global communities needs to be acknowledged and fostered. It has also become imperative that our education system identifies how best to prepare young people for new roles and employment as the emergence of creative industries become the mainstays of our economy. Young people need to experience creativity in their teachers at schools, and outside them. Innovation and Creativity are sometimes defined as if they are synonymous. There are large areas of overlap but I think that useful distinctions can be made:

<table>
<thead>
<tr>
<th>CREATIVITY</th>
<th>INNOVATION</th>
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<tbody>
<tr>
<td>Personal</td>
<td>Process</td>
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<tr>
<td>Human</td>
<td>Systemic</td>
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<tr>
<td>Quantum Leaps</td>
<td>Linear</td>
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<td>Intangible</td>
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<td>Intuitive</td>
<td>Logical</td>
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<td>Values</td>
<td>Utilitarian</td>
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<td>Subjective</td>
<td>Objective</td>
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<td>Unique/ one off</td>
<td>Replicable</td>
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<tr>
<td>e = mc²</td>
<td>Edison, Ford, Bell</td>
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<tr>
<td>Non-cyclical</td>
<td>Cyclical</td>
</tr>
<tr>
<td>Original</td>
<td>Downstream</td>
</tr>
<tr>
<td>Without components</td>
<td>Building on components</td>
</tr>
<tr>
<td>Understanding</td>
<td>Outcomes oriented</td>
</tr>
<tr>
<td>No rules</td>
<td>Rules</td>
</tr>
<tr>
<td>Arts/Music/ Literature</td>
<td>78&gt;LP&gt;CD&gt;DVD</td>
</tr>
<tr>
<td>Understanding existence</td>
<td>Productivity</td>
</tr>
<tr>
<td>Non economic</td>
<td>Entrepreneurial</td>
</tr>
<tr>
<td>Intellectual</td>
<td>Material</td>
</tr>
<tr>
<td>Hard to measure</td>
<td>Easy to measure</td>
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<tr>
<td>Hard to teach</td>
<td>Easy to teach</td>
</tr>
<tr>
<td>Partly innate</td>
<td>Largely experiential</td>
</tr>
<tr>
<td>Jesus, Shakespeare, Bach</td>
<td>Gutenberg, Wright, Marconi</td>
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</tbody>
</table>
Creativity and Innovation have a profound and complex interaction, in which cause and effect are inextricably linked: touch a cause, and it changes the effect, which then changes the cause, and so on…

I would like to propose greater emphasis on

- music and art, promoting creativity as central to human experience and self-discovery – encouraging left and right brain activity from infancy – and emphasising the importance of design as a major tool of understanding

- using creativity and imagination to promote linkages between the earth-bound and normative with the exceptional/numinous/transcendental/divine

- education as a transforming and enhancing experience, including self-mastery, understanding and managing time, encouraging innovative thinking, learning to learn, recognising that the goal is trying to grasp complexity and possibilities (not aiming at certainty)

- recognising that most humans are capable of a far higher level of performance than we generally recognise.

We need to promote imagination, the act of linking:

- known and unknown
- seen and unseen
- heard and unheard
- past < now > future
- here < > not here
- familiar < > unfamiliar
- self < > not self
- language/ colour/ form/ design/ sound.

Sir Ken Robinson chaired the National Advisory Committee on Creative and Cultural Education which produced the report *All Our Futures: Creativity, Culture and Education* (1999) which was commissioned by Tony Blair, and then effectively pigeonholed by David Blunkett. The
Committee had very impressive membership, including the scientists Sir Harold Kroto and Susan Greenfield, actor Dawn French, and educational strategist Dame Tamsyn Imison, administrator Sir Claus Moser and conductor Sir Simon Rattle. Ken was knighted as a consolation prize and then took off for the John Paul Getty Trust in Los Angeles.

Ken Robinson argues that when children are born they are hard-wired for creativity and individuality but that the socialising process of much education encourages them to be co-operative and conformist, a form of institutionalised inhibition or homogeneity.

One of Ken’s favourite stories is of a little girl at kindergarten beginning to draw a picture.

Her teacher asks what she's drawing. The little girl says, "It's a picture of God."

The teacher responds, "No one knows what God looks like."

The child replies, "They will in a minute."

The Robinson Report urges specific provision to improve teachers’ expertise in creative and cultural education.

Excitement and enthusiasm shown by pupils in primary education often tapers off into a sullen resentment in secondary.

One negative effect of the technological revolution is that human relationships may increasingly be carried out not face to face but mediated through the web, through mobile telephones and SMS messages. The recent tragic deaths of Stephanie Gestier and Jodie Gater point to the risks involved in virtual reality through the web, where sites such as MySpace or involvement in sub-cults such as ‘goths’ and ‘emos’ take vulnerable young people into a place of irreversible danger.

The appalling killings at Virginia Tech last April are obvious by-products of the Information Revolution as Cho Seung-hui manufactured artefacts for his web site. He had the technological capacity to communicate with millions but felt unable to make personal contact with individuals.

How many of you watch Channel Nine’s new one-hour quiz program, ‘1 vs. 100’, transmitted on Monday nights at 8.35? It is essentially a populist exploitation of the competing emotions of fear and greed. When I look at
the mob reaction (and ‘mob’ is their word, not mine) I can’t help wondering if the program is compatible with universal suffrage.

Education seems to have become increasingly narrow, instrumental, technical and non-creative, even at the tertiary level. The recently launched Melbourne Model at this university is an audacious attempt to break the existing mould, by insisting on broad education before professional specialisation. I encourage you to see Alan Bennett’s *The History Boys*, either the stage or film versions, for a thoughtful analysis of two views of education.

There must be room in our education for the abstract, the intangible, the spiritual, the aesthetic, the numinous. Are medicine, education, knowledge, politics, understanding, philosophy, sport, research, aesthetics, literature, religion, music, and art all to be regarded as ‘business activities’? Perhaps they are. Where do values come in?

The concept of innovation ought to include ideas, creativity, imagination and values: both material, and non material, commercial and non-commercial. It is not a matter of either/ or – we must have both.

I conclude with some short recommendations for action:

1. Rethinking Plato and Isocrates
2. Recognising the implications of lifelong education for schools
3. Redefining labour-time use value
4. Addressing ‘middle class flight’ from the public system
5. Bringing pre-schooling into the Education system.
6. Devising techniques for individual learning and time-tabling
7. Adjust the balance on the management-education continuum.
8. Promote an extensive examination of the Robinson Report
9. Appropriate incentives for teachers, including specialists
10. Commitment to public education as an instrument of social cohesion
11. Giving public education a higher political priority, even at the risk of offending some aspirationalists

12. Taking charge of the values debate.

Robinson Report (summary of recommendations)

- Head teachers and teachers (should) raise the priority they give to creative and cultural education; to promoting the creative development of pupils and encouraging an ethos in which cultural diversity is valued and supported.
School plans for staff development should include specific provision to improve teachers' expertise in creative and cultural education.

The rationale for the revised National Curriculum from 2000 should make explicit reference to the necessity of promoting the creative and cultural education of all young people.

OFSTED (Office for Standards in Education) should develop its capacity to ensure that specialist areas of education, such as the arts, are inspected by specialists. In particular, there should be a greater number of HMI (Her Majesty's Inspectors) in OFSTED to offer expert advice on specialist teaching and provision and standards.

The DfEE should put in place a more fundamental review of the structure and balance of the National Curriculum beyond 2000. Within this review full consideration should be given to achieving parity between the following discipline areas throughout key stages 1-4 (i.e. ages 5 to 16) as a matter of entitlement:

- language and literacy;
- mathematics and numeracy;
- science education;
- arts education;
- humanities education;
- physical education;
- technological education.

In order to achieve parity, the existing distinction between core and foundation subjects should be removed.

Provision for creative and cultural education in early years education should be further developed, in particular through provision for the arts.

The DfEE should ... take urgent action to assess and remedy the decline in the numbers of teacher training institutions offering specialisms in the arts and humanities in the training of primary school teachers.

The DCMS and the DfEE should:
1. establish a national programme of advanced in-service training for artists, scientists and other creative professionals to work in partnership with formal and informal education;
2. fund a number of pilot projects involving cultural organisations and education providers to investigate practical ways of training artists and teachers to work in partnership;
3. establish a national scheme to allow arts students to take an intercalated year in schools as part of their first degree programme.

The Teacher Training Agency should develop the course requirements, standards and National Curriculum for initial teacher training ... to promote parity between the arts, sciences and humanities in the training of primary school teachers.

_Dover Beach_ (1867) – Matthew Arnold

The sea is calm to-night.
The tide is full, the moon lies fair
Upon the straits; – on the French coast the light
Gleams and is gone; the cliffs of England stand,
Glimmering and vast, out in the tranquil bay.
Come to the window, sweet is the night-air!
Only, from the long line of spray
Where the sea meets the moon-blanch’d land,
Listen! you hear the grating roar
Of pebbles which the waves draw back, and fling,
At their return, up the high strand,
Begin, and cease, and then again begin,
With tremulous cadence slow, and bring
The eternal note of sadness in.

Sophocles long ago
Heard it on the Aegean, and it brought
Into his mind the turbid ebb and flow
Of human misery; we
Find also in the sound a thought,
Hearing it by this distant northern sea.

The Sea of Faith
Was once, too, at the full, and round earth’s shore
Lay like the folds of a bright girdle furl’d.
But now I only hear
Its melancholy, long, withdrawing roar,
Retreating, to the breath
Of the night-wind, down the vast edges drear
And naked shingles of the world.

Ah, love, let us be true
To one another! for the world, which seems
To lie before us like a land of dreams,
So various, so beautiful, so new,
Hath really neither joy, nor love, nor light,
Nor certitude, nor peace, nor help for pain;
And we are here as on a darkling plain
Swept with confused alarms of struggle and flight,
Where ignorant armies clash by night.