A BLUEPRINT FOR LEADERSHIP FOR THE SUCCESSFUL TRANSFORMATION OF SCHOOLS IN THE 21ST CENTURY

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Abstract
There is universal recognition that education is the key to the well being of society and of the individual in the years ahead. It is a knowledge society and it spans the globe. Paradoxically, the school may decline in importance with the stunning advances in technology, the emergence of other places of learning, and in some nations, a loss in public confidence in the institution of the school. On the other hand, the very opposite may occur if leaders at all levels, but especially in schools, understand the remarkable array of opportunities that are waiting to be seized. It could be a golden era for schools and school leaders. A critical task will be to connect each individual – each teacher and each leader – to the institution – the system of education and each of its schools – in a collaborative community commitment to the enterprise. More specifically the challenge is to connect the learning of the individual to the learning of the institution – individual learning to organisational learning – or, as the conference theme describes it, to move from teacher development to school development. The purpose of this paper is to provide a blueprint to guide the process for those who see the enterprise as the transformation of schools in the 21st century. It is proposed that school development is enhanced to the extent that the school is part of a network of institutions in the wider community.

Key words: TRANSFORMATION, NETWORKING, LEADERSHIP
I was honoured to receive the invitation to contribute to this important conference. In a personal sense, as a past president of the Australian Council for Educational Administration, it is an opportunity to extend my congratulations to the Hong Kong Council for Educational Administration. Over the last 20 years, the HKCEA has made a valuable contribution to education in Hong Kong. Its leaders have always enjoyed a high international reputation. It is a characteristic of Hong Kong that you have invited many people from around the world to speak at conferences and to contribute as consultants. We have benefited from the wisdom of those members of HKCEA who have contributed to conferences in our nation and have provided leadership in their own right in the Asia-Pacific region. This is a striking example of individual and institutional learning on an international scale.

In an institutional sense, as Dean of Education at the University of Melbourne, it is an opportunity for me to say how pleased we are to be in partnership with the Division of Continuing Professional Education (CPE) of the Hong Kong Institute of Education in the offering of Melbourne’s Postgraduate Certificate of Educational Management and the Master of Educational Management. I look forward to making a personal contribution to this endeavour.

MAPPING A VISION FOR THE FUTURE

Transformation means change that is significant, systematic and sustained. Transformation means that the school of the future will look quite unlike the school of the present. The transformation of schools means the transformation of work for those engaged in the core business of learning and teaching. Expressed simply, the transformation of schools means the transformation of the teaching profession. If the profession is transformed then the role of those who exercise leadership will be transformed. It seems that every nation seeks to bring about the transformation of its schools.

To desire such a change is not a reflection on outcomes in the past, or on the efforts of teachers and their leaders, least of all in Hong Kong that enjoys a reputation for success in international comparisons of student achievement, and has a refreshing openness to new ideas, as reflected, for example, in the work of the Education Commission whose achievements over many years I acknowledge at this time. The EC has been exemplary in the way it has provided a framework for policies for transformation.

Much of my work over the last three years has been to develop what I have called a ‘blueprint’ or ‘map’ to guide the work of those who seek to lead the transformation of schools. I have refined, updated and presented the blueprint in several countries, including Australia, England, India, Scotland, Singapore, South Africa, Thailand, and now in China in Hong Kong SAR.

As illustrated in Table 1, the blueprint comprises one vision, three tracks, six values, four dimensions, five domains and two integrating themes. The vision refers to the desired outcome of the global transformation that is under way, and the emerging consensus on expectations for schools. The tracks refer to the broad directions of change in schools and school systems. The values are those that underpin a sense of the public good in education. The dimensions refer to major classifications of approaches to leadership that should be evident in practice. The domains refer to areas in which leaders should concentrate their efforts. The integrating themes are the capacities that must be developed to ensure success in achieving the vision, the scale of which warrants its description as ‘the transformation of schools for the 21st century’. These integrating themes, to be explained later, are ‘balancing innovation and abandonment’ and ‘knowledge management’.
Table 1: The blueprint for leadership

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In the context of this conference, the blueprint is offered as a guide to the role of the leader in moving from individual development to school development. It is a blueprint that calls for a deeply dispersed leadership, not just those at the senior levels of the bureaucracy and not just the principals of schools. This deeply dispersed leadership – often referred to in the literature as distributed leadership – is a pre-condition for connecting teacher development to school development.

The paper is organised around the blueprint. Brief explanations and illustrations are provided for each element. A case study is provided of a country that in my opinion is moving toward adoption of the blueprint in a critical mass of its schools. A reason for good progress is transforming educational leadership at all levels, including and especially that of the prime minister, and a willingness to engage in abandonment as a prelude to innovation.

**Vision**

There is now a global consensus on expectations for schools and this is the vision to which I subscribe. It may be summarised in these words:

All students in every setting should be literate and numerate and should acquire a capacity for life-long learning, leading to success and satisfaction as good citizens and productive workers in a knowledge economy.

It is important to stress that this is an emerging consensus. Different nations, schools systems and schools will, of course, have their own, often-unique expectations. There will be expectations for schools in Hong Kong that should be added to this statement.

How well are our respective nations doing in realising this vision? The achievements of Australia’s schools are impressive if the performance of 15-year olds in tests of their capacity to apply knowledge and skills in reading, mathematics and scientific literacy to real life problems are taken as a guide. A total of 265,000 students from 32 nations participated in the first round of the Program for International Student Assessment (PISA) conducted by the OECD (2002). Australia ranked fourth behind Finland, Canada and New Zealand in reading; fifth behind Japan, South Korea, New Zealand and Finland in mathematics; and seventh behind South Korea, Japan, Finland, UK, Canada and New Zealand in science. However, disparities among different groups of students were wider than in 29 of the 32 countries.

Hong Kong did not participate in the first round of PISA but did so in the second. Its performance is even more impressive:
Overall, Hong Kong students performed well compared with students in most other countries, ranking first in mathematics, third in science, and sixth in reading among the participating countries. Researchers studied the equality in education and how students' socio-economic backgrounds (SES) affect their ability, together with other factors affecting students’ reading, mathematical and scientific literacy. As far as equality in education is concerned, Hong Kong's high scores were not gained at the expense of higher inequality in schooling. The disparities between high (95th percentile) and low achievers (5th percentile) are relatively small, suggesting that most students in Hong Kong have similar access to, and benefit from, the Hong Kong educational system. (Chinese University of Hong Kong, 2003)

Thus, except for the concern about disparity in Australia, both Australia and Hong Kong are doing well in that element of the vision that is concerned with being ‘literate and numerate’. It is the other elements that challenge us in each setting, namely, ‘to acquire a capacity for life-long learning, leading to success and satisfaction as good citizens and productive workers in a knowledge economy’.

What may happen if these expectations are not achieved? What happens if they are? Indeed, what are the scenarios for the future of schools? The Organisation for Economic Cooperation and Development (OECD) undertook an analysis of the internal and external environment for schools in 2000. A conference on ‘Schooling for Tomorrow’ in Rotterdam in November 2000 led to the presentation in April 2001 to OECD Ministers of Education of a set of six scenarios (OECD, 2001). The scan of the external environment considered childhood, generational issues and the ageing society; gender and family; knowledge, technology and work; lifestyles, consumption and inequality; and geo-political dimensions – local, national and international. The internal environment was analysed in terms of existing robust school systems; trends in the development of schools as learning organisations; issues related to evaluation, assessment and certification; and teachers and teacher policies. The six scenarios described the possible strategic directions for schools over the next 10 – 15 years, with two considered an extension of the status quo, two involving the ‘re-schooling’ of society, and two resulting in ‘de-schooling’.

Two scenarios extending the status quo

**Scenario 1: ‘Robust bureaucratic school systems’** characterised by strong bureaucracies and robust institutions; vested interests resisting fundamental change; and continuing problems of school image and resourcing. (p. 79)

**Scenario 2: ‘Extending the market model’** characterised by widespread dissatisfaction leading to a re-shaping of public funding and school systems; rapid growth of demand-driven ‘market currencies’, indicators and accreditation; and greater diversity of providers and professionals, along with greater inequality. (p.82)

Two ‘re-schooling’ scenarios

**Scenario 3: ‘Schools as social core centres’** characterised by high levels of public trust and funding; schools as centres of community and social capital formation; and greater organisational and professional diversity as well as greater social equity. (p. 85)

**Scenario 4: ‘Schools as focused learning organisations’** characterised by high levels of public trust and funding; schools and teachers networking widely in learning organisations; and strong quality and equity features. (p. 89)

Two ‘de-schooling’ scenarios
Scenario 5: ‘Learner networks and the network society’ characterised by widespread dissatisfaction with and rejection of organised school systems; non-formal learning using ICT potential that reflects the ‘network society’; and organisation around communities of interest with potentially serious equity problems. (p. 91)

Scenario 6: ‘Teacher exodus – The “meltdown” scenario’, an extension of the status quo in some settings, characterised by severe teacher shortages that do not respond to policy action; retrenchment, conflict, and falling standards leading to areas of ‘meltdown’; with a crisis spurring widespread innovation with a future still uncertain. (p. 94)

Earlier formulations of these scenarios were the subject of conferences in Rotterdam (73 participants) and St-Gall, Switzerland (100 participants). Participants included decision-makers and officials, researchers and consultants, teachers, academics, principals, business, unions, and students. Participants rated the likelihood and desirability of the different scenarios. Hutmacher (2001, p. 237) summarises the outcomes in these terms:

The two ‘re-schooling’ scenarios are considered by many to be both desirable and likely, while the ‘de-schooling’ futures are usually considered both undesirable and unlikely. Only the ‘status quo continues’ scenario is judged by most of those canvassed to be undesirable but reasonably likely to occur.

The OECD exercise is a significant one and deserves serious attention by all with an interest and stake in the future of public education. The report cited in this paper and more recent developments warrant a careful reading. Like all scenarios, they reflect just some of the possibilities and generate considerable passion in discussion and debate. The ‘re-schooling’ scenarios clearly captured the imagination of participants in the process, being deemed both likely and desirable, and Hutmacher’s description is cited in more detail as follows:

At around 80 percent support, they clearly represent the ‘dream’ schooling scenarios for those questioned. What do these visions convey? Briefly put, schools would remain in the public sector, operating in a largely consensus-based environment where funding is guaranteed, but where central government and education departments would play a different role. In contrast to the situation at present, they would be able to provide everyone with better access to knowledge as a public good but confine themselves to setting educational goals for schools through strategic medium-term targets and a general frame of reference and guidance. While education would be increasingly individualised, schools would keep the key collective function of providing a place of social integration at the local level. The acquisition of knowledge and skills by all would be of central concern but socialisation – passing on the values of community, democracy and solidarity – would be just as important. Reducing the social inequalities of education would be permanent goals of systems and individual schools. (Hutmacher, 2001, p. 238)

This is a very optimistic scenario, and what challenges it in many nations is Scenario 6: "Teacher exodus 'The meltdown' scenario. The issue is to attract and retain the best people to serve in the profession. It is helpful to describe the characteristics of the profession in Scenario 4: Schools as focused learning organisations (OECD, 2001, p. 90):

- A high status teaching corps, enjoying good rewards and conditions.
- Somewhat fewer in lifetime careers, with greater mobility in and out of teaching and other professions.
- More varied contractual arrangements but good rewards for all.
• Major increase in staffing levels, allowing greater innovation in teaching and learning, professional development, and research.
• Networking the norm among teachers, and between them and other sources of expertise.

The OECD is extending its project with a series of case studies in five nations to help construct a 'toolbox' to assist policymakers and practitioners at all levels who seek to engage in related projects.

What are implications for Hong Kong? A series of questions can be posed. Is there a vision for schools in Hong Kong? Is there a shared commitment to the same vision? At the local level, is there a vision for the school? Is there a shared commitment to that vision? Similar questions may be posed as far as scenarios are concerned? What are the scenarios for Hong Kong? Which scenario is desirable for your school? Is your school a 'focused learning organisation'? Do your teachers have the characteristics of professionals in such an organisation?

Tracks for change in the transformation of schools

There seem to be three directions or tracks for change in education (Caldwell and Spinks, 1998) (Table 2). Track 1 is the building of systems of self-managing schools. More authority and responsibility are being decentralised to the local level within a framework of centrally determined goals, priorities, frameworks, standards and accountabilities. Track 2 is an unrelenting focus on learning outcomes for students. There is unprecedented concern for the monitoring of student achievement, with international benchmarking now gathering momentum (as illustrated in PISA). Track 3 is the creation of schools for the knowledge economy, with information and communications technology a powerful force for change. A defining characteristic of the knowledge economy is that the largest group in the workforce is comprised of knowledge workers, being those who solve problems, manage information, or create new knowledge, products and services.

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<th>Tracks for change</th>
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<td>2. Unrelenting focus on learning outcomes</td>
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<td>3. Creating schools for the knowledge economy</td>
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From my perspective, Hong Kong has moved a considerable distance down each track. I believe it is important for leaders at all levels to gain an appreciation of these developments in an international context. What is occurring in Hong Kong has a counterpart in virtually every comparable nation.

I have a particular interest in self-managing schools and have had a modest opportunity to contribute to developments in Hong Kong. It has been interesting to observe the limited achievements in what was known a decade ago as the School Management Initiative (SMI) and, more recently, to witness the debates about the merit of school-based management. Our work in other nations points to the importance of a focus on learning and teaching, and the
support of learning and teaching, in the design of a system of self-managing schools. The logic is simple. If every school has a unique mix of student learning needs, then each school must have a capacity to mix and match its resources to address local priorities among those learning needs and to select or develop the staff who have the skills to succeed in this endeavour.

Another way to describe the ‘tracks for change’ is Cheng’s concept of ‘triplisation’ that has shaped my own thinking on the transformation of schools. Cheng proposed that every enterprise in education, including schools, school systems and universities, needs a new paradigm or framework to shape its operations. There are three dimensions in this paradigm: globalisation, localisation and individualisation. He coined the concept of ‘triplisation’ to give it coherence. The case for a new paradigm is based on different kinds of intelligence that are necessary in the 21st century. These are learning intelligence, technological intelligence, economic intelligence, social intelligence, political intelligence, and cultural intelligence. He described these as ‘contextualised multiple intelligences’ (Cheng, 2001, p.39).

Values that define the public good in education

Achieving the mission and realising the vision call for actions that are underpinned by values that define the public good in education. These are set out in Table 3.

Table 3: Values that define the public good in education

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<th>Values and the public good</th>
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<td>1. Access</td>
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<td>2. Equity</td>
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<td>3. Choice</td>
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<td>4. Growth</td>
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<td>5. Efficiency</td>
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<td>6. Harmony</td>
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- **Choice** to reflect the right of parents and students to choose a school that meets their needs and aspirations.
- **Equity** to provide assurance that those students with similar needs and aspirations will be treated in the same manner in the course of their education.
- **Access** to ensure all students will have an education that matches their needs and aspirations.
- **Efficiency** to optimize outcomes given the resources available.
- **Economic growth** to generate resources that are adequate to the task.
- **Harmony** to secure and sustain the support of all stakeholders.

Hong Kong would appear to be doing well in its commitment to these values especially as far as equity and access is concerned. The high levels of achievement in the second round of PISA and the narrow range of achievement between high performing and low performing students are good indicators.

Dimensions of leadership in the transformation of schools

Leadership at all levels is critically important if the vision is to be realised. Four dimension as proposed in Table 4.

1. **Strategic leadership**

School leadership is strategic when it involves:
• Keeping abreast of trends and issues, threats and opportunities in the educational environment and in society at large, nationally and internationally; discerning the ‘megatrends’ and anticipating their impact on education generally and on the school in particular;
• Sharing such knowledge with others in the school community and encouraging other leaders within the school to do the same in their areas of responsibility;
• Establishing structures and processes which enable the school to set priorities and formulate strategies which take account of likely and / or preferred futures, and being a key source of expertise as these occur;
• Ensuring that the attention of the school community is focused on matters of strategic importance.
• Monitoring the implementation of strategies as well as emerging strategic issues in the wider environment, and facilitating an ongoing process of review.

(Caldwell and Spinks, 1992, p. 92)

A capacity for strategic leadership has special priority at this time. Higher expectations for schools present challenges that have no counterpart in the history of education if they are to be brought to realisation. It requires every leader at every level to do the things listed above. It is a ‘whole-of-government’ or ‘whole-of-school’ approach, with every school leader having a capacity for strategic leadership in the specific meaning of that term: seeing ‘the big picture’, discerning the ‘megatrends’, understanding the implications, ensuring that others can do the same, establishing structures and processes to bring vision to realisation, and monitoring the outcomes. It is important, for example, for school leaders in Hong Kong to appreciate that effort to transform schools are consistent with what is occurring elsewhere around the world.

Table 4: Dimensions of leadership
(Caldwell and Spinks, 1992)

|--------------------------|-------------|----------------|---------------|-------------|

2. Educational leadership

Educational leadership refers to a capacity to nurture a learning community, again defined broadly to include a nation, state, school system, but especially a school. This is explained in more detail in one of the domains for leadership, but there is a ‘hard edge’ to the concept. A ‘learning community’ or a ‘learning organisation’ sounds a very comfortable place in which to work, but the stakes are high if the consensus on expectations for schools is to be realised.

With the wide range of learning needs in schools, these and other strategies to achieve targets call for teachers to have state-of-the-art knowledge about what works for each and every student. It calls for leaders who themselves will have much of this knowledge, but will certainly be able to manage learning and teaching so that knowledge is acquired and successfully brought to bear. Once again, this extends to all levels, including government, as well as for leaders in the local school setting.

3. Responsive leadership

Responsive leaders accept there are many stakeholders who have a ‘right to know’ how well schools are doing. Its importance is reflected in current interest in ‘evidence based leadership’.
School leaders will be comfortable in collecting, analyzing and acting on data and will be concerned at all times with how their schools ‘add value’ to the learning experience.

4. Cultural leadership

Each of the above indicates that there will be dramatic change to ‘the way we do things around here’, at the system and school levels. Successful leaders will have a capacity to change the culture. This is no easy task, given that the scale of the change and the seriousness of the endeavour are still not broadly understood, let alone accepted, in many settings.

**FIVE DOMAINS OF INNOVATION**

Five domains for action are proposed for those who seek to lead the transformation of schools in the 21st century. These are listed in Table 5. Four lie squarely in the field of education. One spans the fields of education, health, and a range of other institutions and agencies in the public and private sectors across the community. It reflects the view that we cannot close the gap between current achievement and higher expectations unless there is extensive networking among these organisations.

Each domain calls for a capacity for innovation. Drucker (1999, p. 73) contends that the only ones who will survive in a period when change is the norm will be the change leaders, for ‘to be a successful change leader an enterprise has to have a policy of systematic innovation’ (Drucker, 1999, p. 84).

I would like at this point to acknowledge the way the Quality Education Fund (QEF) has energised innovation in Hong Kong Schools. I have served as consultant to several projects. I had the opportunity last year to learn much more about the operation of the scheme when I worked with Professor Patrick Griffin and others from the University of Melbourne to design an evaluation methodology and recommend qualitative and quantitative performance measures for education outcomes and outputs. We could find no counterpart to the QEF in any nation. Hundreds of schools have introduced at least one significant innovation as a result of their participation in the QEF program. Most projects fall in the domains listed in Table 5 and described briefly in the following pages. The achievements of the QEF were highlighted in the recent report of the Committee for the Review of Teaching and Teacher Education (2003) in Australia.

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**School Design**

The first domain of school design refers to the extent to which a school is organised as a conscious, consistent, coherent and comprehensive ‘whole’. Hill and Crévola (1999) refer to a ‘whole school design’ and propose eight elements:

- standards and targets;
- monitoring and assessment;
- classroom teaching programs;
- professional learning teams;
• school and class organisation;
• intervention and special assistance;
• home, school and community partnerships; with all
• underpinned and centred on beliefs and understandings


A design for the third track for change (‘creating schools for the knowledge economy’) may
be illustrated in a gestalt — a perceived organised whole that is more than the sum of its
parts — as in Figure 1.

• Dramatic change in approaches to learning and teaching is in store as electronic
networking allows 'cutting across and so challenging the very idea of subject
boundaries' and 'changing the emphasis from impersonal curriculum to excited live
exploration' (Papert, 1993). At risk is the balkanised curriculum that has done much
to alienate children from schooling, especially in the middle years of the transition
from primary to secondary (g1 Connectedness in curriculum).
• Schools as workplaces are transformed in every dimension, including the scheduling
of time for learning and approaches to human resource management, rendering
obsolete most approaches that derive from an industrial age, including the concept of
'industrial relations' (g2 Workplace transformation).
• The fabric of schooling is similarly rendered obsolete by electronic networking.
Everything from building design to the size, shape, alignment, and furnishing of
space for the 'knowledge worker' in the school is transformed. In one sense, of course,
the school has no walls, for there are global learning networks, and much of the
learning that calls for the student to be located at school occurs in many places, at
home and, at the upper years of secondary schooling and, for life-long learning, in the
work place. (g3 School fabric and globalisation).
• A wide range of professionals and para-professionals support learning in an
educational parallel to the diversity of support that may be found in modern health
care. The role of teacher is elevated, for it demands wisdom, judgement, and a facility
to manage learning in modes more complex and varied than ever. While the matter of
intellectual capital must be resolved, the teacher is freed from the impossible task of
designing from their own resources learning experiences to challenge every student:
the resources of the world's great teachers will be at hand (g4 Professionalism and
great teaching).

Figure 1: A gestalt design for creating schools for the knowledge economy
(Caldwell and Spinks, 1998)
A capacity to work in teams is more evident in approaches to learning, given the primacy of the work team in every formulation of the workplace in the knowledge society. This, of course, will confound those who see electronic networking in an outdated stereotype of the loner with the laptop. The concept of 'pastoral care' of students is as important as ever for learning in this mode, and in schools that quite literally have no boundaries (g5 Teams and pastoral care).

Spender’s (1995) to formulate 'cyber-policy of the future' is a priority. The issues of access and equity will drive public debate until such time as prices fall to make electronic networks as common as the telephone or radio, and that may soon be a reality, given trends in networked computers (g6 Cyber-policy, access and equity).

The concept of the virtual organisation or the learning network organisation is a reality in the knowledge society. Schools take on many of the characteristics of such organisations, given that learning occurs in so many modes and from so many sources, all networked electronically (g7 Virtual schools).

What are the implications for leaders in Hong Kong schools? As elsewhere, it means a high level of knowledge and skill in school design, not just for a single change, but also for coherent and comprehensive change. Programs for the preparation and ongoing professional development for leaders must be similarly coherent and comprehensive if the connection is to be made between individual and school development, and if schools are to be transformed on the scale illustrated in Figure 1.

**Networks**

It is becoming increasingly evident that schools cannot be transformed solely by the efforts of teachers and their leaders acting alone. Outstanding schools, especially those in challenging circumstances, link their efforts to other institutions and agencies in the public and private sectors. Expressed another way, there is need for networking and partnerships, especially between education and health, welfare and a range of human service organisations.

We have had a century or more of largely successful effort in the public sector with responsibility in the hands of discrete government departments each reporting to a particular
minister (or counterpart in Hong Kong). What happens at a government school is largely a matter for the department and a responsible minister. Yet the problems to be addressed in closing the gap are complex and demanding of attention of those who work in different departments, or elsewhere, outside government and in the private sector.

While inter-department cooperation and networking have been evident, it is only in recent times that signs of a major shift in culture that fosters even higher levels have been seen. That shift has resulted from a backward-mapping approach, starting from a focus on people and a problem, then selecting a strategy to address the problem, then designing and delivering a constellation of services and resources, without consideration of organisational boundaries except where the public good test is not satisfied. This linear process is made more complex because there is rarely a single problem to address and rarely a single solution. Governments that have taken this approach now speak of ‘joined up solutions to joined up problems’ and advocate breaking down organisational boundaries. They use the metaphor of a silo to describe the isolation of a government department.

For the longer term, the prognosis of eminent Australian educationist Hedley Beare warrants serious consideration:

**The self-contained, stand-alone school will be superseded**

The best schools are part of a living ecology of learning localities and sites, and can access learning modules from almost anywhere. The school, therefore, acts not as a sole and exclusive provider of programs for the students enrolled, and does not assume its own curriculum offerings are confined to its own campus. Rather, it acts as a learning broker to find, contract in, and then manage what is available on its web of contacts. (Beare, 2002, p. 40)

**Curriculum**

The emerging global consensus on expectations for schools is commendable, but many would argue that the range of outcomes and their measures are much too narrow. The idea of ‘multiple intelligences’, based on Gardner’s *Frames of Mind* (Gardner, 1983), is a helpful starting point. He included logical mathematical, linguistic, spatial, musical, bodily kinaesthetic, interpersonal, interpersonal and naturalist.

Handy provides a more accessible classification, suggesting that three intelligences — factual intelligence, analytical intelligence and numerate intelligence — ‘will get you through most tests and entitle you to be called clever’ (Handy, 1997, p. 211). He suggests eight more: linguistic intelligence, spatial intelligence, athletic intelligence, intuitive intelligence, emotional intelligence, practical intelligence, interpersonal intelligence and musical intelligence’ (Handy, 1997, pp. 212 - 213).

Leadbeater suggests that ‘the curriculum needs to encourage creativity, problem solving, team building, as well as literacy and numeracy’ (Leadbeater, 1999, p. vi). Beck sets a similar curriculum in the context of globalisation:

One of the main political responses to globalisation is . . . to build and develop the education and knowledge society; to make training longer rather than shorter; to loosen or do away with its link to a particular job or occupation. This should not only be a matter of ‘flexibility’ or ‘lifelong learning’, but of such things as social competence, the ability to work in a team, conflict resolution, understanding of other cultures, integrated thinking and a capacity to handle the uncertainties and paradoxes of the second modernity. Here and there, people are beginning to realise that
something like a transnationalism of university education and curricula will be necessary. (Beck, 1999, p. 27)

To do all of this will require the abandonment of much of the existing curriculum. However, the choice of what to include and what to exclude is a particular daunting one. As leading Australian educationist and founding CEO of the Australian Principal’s Centre Phillip Hughes has expressed it:

The search for a less crowded curriculum should make us look more critically at what we include: information, concepts, understandings, skills, and values. We do not want a content-dominated curriculum. We cannot afford a content-free curriculum. (Hughes, 2002, p. 3)

I know that curriculum issues are at centre stage in Hong Kong. Issues related to school-based curriculum, language education and language proficiency, and ‘learning how to learn’ are just three. There are parallel issues in the area of assessment. These are domains of innovation in most other nations.

**Pedagogy**

Awareness that different approaches to learning and teaching – broadly described here as pedagogy – are effective for different students in different settings has never been higher. Some schools and school systems are moving beyond a standard curriculum and a standard pedagogy to creative learning pathways for each student, especially at the senior secondary level. There is a rich research agenda here, and our knowledge will continue to build in the years ahead. The International Centre for Classroom Research at the University of Melbourne led by David Clarke is working with researchers in ten other countries to learn how students learn best in different settings. A research team at the University of Hong Kong led by Frederick Leung is a partner in the enterprise. Alan Luke, who pioneered the ‘new basics’ in curriculum in Australia heads the Centre for Research in Pedagogy and Practice at Singapore’s National Institute of Education, the best-funded educational research centre in the Asia-Pacific.

The revolution in information and communications technology and the advent of exciting, pedagogically sound approaches to inter-active multi-media learning mean that it is possible to learn anytime, anywhere. A revolution is clearly under way. Kenichi Ohmae has captured the new reality in his description of the cyber-enabled ‘invisible continent’ (Ohmae, 2000). He is in no doubt about the place of education when he stated that ‘the most fundamental lever for success in the new continent is education’ and ‘education is the first and foremost priority for any nation . . . preparing youngsters to comprehend the invisible continent and compete in its endeavours and explorations is the best investment that a government (or parents, for that matter) can make. (Ohmae, 2000, p. 227 – 229)

School leaders will be at the centre of discussions and debates on pedagogy in the decade ahead. The use of information and communications technology is just one strand of these deliberations. The wider issue will be to bring about a high degree of alignment of curriculum, pedagogy and assessment. These three will shape the more comprehensive school design, described and illustrated in domain 1.

More generally, however, is the issue of knowledge about pedagogy, and what works and why for different students in every setting. It is my view that the knowledge base is stronger than it has ever been, and the challenge for leaders is to ensure that this knowledge is created, shared and managed in the local setting. An illustration of the strength of that knowledge base is in Carolyn Orange’s user-friendly summary of practices, programs, policies and philosophies associated with different innovations (Orange, 2002).
Professionalism

The unrelenting focus on learning outcomes in the emerging consensus on expectations for schools suggests ‘innovation in professionalism’, in that teachers’ work will be research-based, outcomes-oriented, data-driven, and team-focused, with lifelong professional learning the norm as it is for medical specialists.

A wonderfully rich professionalism is evident in the ‘intelligent school’ proposed by MacGilchrist, Myers and Reed (1997). This is the organisational counterpart of an individual with ‘multiple intelligences’. Professionals in an ‘intelligent school’ will have contextual intelligence, strategic intelligence, academic intelligence, reflective intelligence, pedagogical intelligence, collegial intelligence, emotional intelligence, spiritual intelligence and ethical intelligence.

Leaders will be actively engaged in the promotion of this kind of professionalism in the decade ahead. There has been impressive achievement in recent times, as evidenced by the acquisition of knowledge and skill in the areas of literacy and numeracy. The challenge is to ensure that this applies for all teachers in every area of their professional work. A helpful starting point for appreciating the size of this domain is the taxonomy of educational innovations prepared by Orange (2002).

There is also the challenge of how to attract and keep in the profession the best of our young people and the wisest of our mature people. There are implications for governments and the wider community as well as for schools. For our part, in universities, we need to re-design programs in teacher education.

The numbers of people seeking to enter the profession are increasing. On the other hand, the numbers who leave are increasing. Internationally, at least among most western nations, there is a crisis in these matters, and a failure to resolve it is one of the six OECD scenarios referred to earlier (‘teacher exodus – meltdown’) (OECD, 2001). In the United States, there is evidence that the nature of teachers’ work is at the root of the problem. The data show ‘that the amount of turnover accounted for by retirement is relatively minor when compared to that associated with other factors, such as teacher job dissatisfaction and teachers pursuing other jobs’ (Ingersoll, 2001, p. 499).

INTEGRATING THEMES

There are two themes that integrate the activity in the five domains of innovation. One is knowledge management, the other is abandonment.

Knowledge management

Knowledge management includes knowledge creation, dissemination and utilisation for the purposes of improved learning and teaching and to guide decision-making and priority setting in every domain of professional practice. Knowledge management is not just a fad that will pass or a piece of jargon to describe what has always been a requirement in the organisation.

According to Bukowitz and Williams (1999, p. 2), ‘knowledge management is the process by which the organisation generates wealth from its intellectual or knowledge-based assets’. In the case of school education, ‘knowledge management is the process by which a school achieves the highest levels of student learning that are possible from its intellectual or knowledge-based assets’. Successful knowledge management is consistent with the image of
‘the intelligent school’ (MacGilchrist, Myers and Reed, 1997) and the concept of ‘intellectual capital’ (Stewart, 1997).

It is helpful to conceptualise the process of knowledge generation and utilisation in knowledge management. Burgoyne (cited by Bahra, 2001, pp. 155) offers the following:

**Data** are collected, stored and processed to create

**Information** that is reflected on to produce

**Knowledge** that is the basis for

**Action**

Reflection on which may lead to *wisdom*.

Knowledge management calls for a school to develop a deep capacity among its entire staff to be at the forefront of knowledge and skill in learning and teaching and the support of learning and teaching. This is more than occasional in-service training or professional development. This is a systematic, continuous and purposeful approach that starts with knowing what people know, don’t know and ought to know. It assumes an innovative professionalism, as already described, and includes a range of functions such as selection, placement, development, appraisal, reward, succession planning, contracting of services and ensuring that every aspect of the workplace is conducive to efficient, effective and satisfying work for all concerned.

The challenge is to transform the culture in education to enable such networks to be created and sustained. Jackson (2002, pp. 5 – 6) draws attention to the currently weak culture compared to that in medicine (moderate) and in the high technology industry (high).

**Abandonment**

A capacity for systematic abandonment is as important as a capacity for systematic innovation. Effective knowledge management should enable the school to engage in systematic abandonment, something the culture has not allowed to this point. The outcome has been a clearly over-worked profession.

Drucker (1999) calls for ‘organised abandonment’ for products, services, markets or processes:

- Which were designed in the past and which were highly successful, even to the present, but which would not be designed in the same way if we were starting afresh today, knowing the terrain ahead;

- Which are currently successful, and likely to remain so, but only up to, say, five years — in other words, they have a limited ‘shelf life’; or
• Which may continue to succeed, but which through budget commitments, are inhibiting more promising approaches that will ensure success well into the future.

The five domains call for abandonment of a range of approaches. Innovation in design will certainly require abandonment of standard class sizes for all students at every level in facilities built like a collection of boxes, lined end to end or stacked one upon the other. Innovation in networking calls for abandonment of the silo metaphor, and abandonment of the view that problems occur in simple clusters and can be addressed by accessing services in a single sector. Innovation in curriculum requires abandonment of some learning areas that have been painstakingly constructed in the past. Pedagogy is a domain fraught with dilemmas, but ripe for abandonment of approaches that do not yield outcomes consistent with expectations for world-class schools. Innovation in professionalism challenges the modest levels of knowledge and skill that sufficed in the past with a vision for values-centred, research-based, outcomes-oriented, data-driven and team-focused approaches that matches or exceeds that of the best of medical practice.

I am sure that teachers and their leaders in Hong Kong feel as overwhelmed by continuous change as their counterparts in other places. The challenge is to balance innovation and abandonment. It is not easy, but it is necessary if there is to be success in the transformation of schools, and if the experience is to be a satisfying one for all concerned.

A COUNTRY CASE STUDY OF THE BLUEPRINT

If I were to suggest a third rather different country that educators in our two nations might visit to study transformation at this time I would nominate England. It offers an interesting case study of the blueprint in action, supported by the Blair Government elected to its first term in 1997 with a manifesto that declared its three top priorities to be ‘education, education, education’. The Prime Minister has taken the lead in the transformation, as illustrated in his remarks at the opening of the Bexley Business Academy (a city academy of the kind described below):

My passionate belief is that educational success is the route to social justice - for each individual young person, and for our nation as a whole - and that there is nothing more important for us as a nation than to invest in new and better schools in areas which have failed in the past. (Blair, 2003a)

Four practices are described here by way of illustration. They are primarily instances of transformation of school design that have embedded within them the transformation of approaches to curriculum, pedagogy and professionalism. Examples of abandonment and knowledge management are also provided. Each involves networking, especially through public private partnerships. Details can be found in Caldwell (2003a; 2003b).

City Academies

A major project of the Blair Government is the establishment of City Academies that involve the closure, re-opening, re-naming and physical re-building of secondary schools in cities across England. The abandoned schools are seen as having failed their communities despite the various ‘special measures’ that have been taken to achieve improvement. A feature is the inclusion of one or more of the following elements: a contribution from the non-public sector of funds in the re-building program (normally a requirement), significant philanthropic support, or the management of the new school by a non-public entity, either profit or non-profit. At the time of writing, 12 academies have been opened and 25 more are in the planning stage. The intention is to establish 50 over the next four years, all in communities marked by poor educational performance and many replacing weak or failing schools.
An interesting development in the establishment of city academies is the appointment of an Executive Principal at Greig City Academy in Haringey, London. Formerly known as the Hornsby School (and described in the media as having ‘a lamentable reputation at the bottom-of-the-league exam results’), it closed at the end of the 2002 - 2003 school year and re-opened as Greig City Academy at the start of 2003 - 2004 with a new school uniform, a new philosophy and £50 million investment in infrastructure. Executive Principal David Triggs was appointed in May. He was Principal of Greensward School in Surrey. Greensward and Greig each now have their own principals, reporting to Triggs, who serves as Executive Principal to both schools. A feature is the role played by the non-profit Community Action Network, described in more detail below.

Specialist schools

One of the most notable developments in England is the establishment of specialist schools. Commencing in the Thatcher years with just 15 city technology colleges, there are now more than 1500 out of a total of 3200 secondary schools that have developed a specialist approach. Success has led to it becoming a major item in the Blair Government’s agenda for a second term. Facilitating the development is the Specialist Schools Trust and its network of over 2200 affiliated schools.

Ten specialisms are encouraged: arts, technology, languages, sports, business and enterprise, engineering, mathematics and computing, science, humanities and music. Schools are still required to address the national curriculum in each key learning area. The important feature is the development of specialisation or areas of excellence in one or more of the nominated areas. These secondary schools, now clearly constituting a critical mass in England, may be found in every setting, with as many in low as in high socio-economic areas. There is persuasive evidence of impact on learning (Jesson and Taylor, 2002).

A large network of specialist schools is known as Vision 2020 and this has become the ‘innovation arm’ of the Specialist Schools Trust. The 2200 affiliated schools are formed into regions, with each region having an innovation budget. There is a strong culture of sharing good practice in these networks, with the Birmingham network a model in this regard. A striking initiative is the establishment of a program of leadership development for ‘leaders of tomorrow’ – those in the first five years of teaching appointment. Features include the leadership of the program by successful principals, a network of mentor support, seminars with leading educationists, and work-related projects.

There is no doubting the Prime Minister’s commitment to specialist schools. He included reference to them in his speech at the Labour Party Conference in Bournemouth (Blair, 2003b). In terms of rate of growth and impact, a case can be made that the specialist schools movement in England is one of the most significant developments in secondary education in any nation.

About 35 schools in Victoria, Australia have affiliated with the Specialist Schools Trust that employs Dr Wendy Cahill, Senior Fellow in the Faculty of Education at the University of Melbourne, as its regional coordinator. A network of affiliated schools in a number of countries is being assembled. Since the concept of ‘specialist school’ has currency in England only, a more generic title for the network is under consideration, with a focus on ‘transformation’. A likely name is international Networking for Educational Transformation (iNET). Participants in this conference may wish to consider the possibilities of an iNET (Hong Kong) or an iNET (China) or other regional entity. A major international conference of affiliated networks will be held in Melbourne in July 2004.

Private management of public schools
Initial concern about public private partnerships that involve the management of schools has largely dissipated once it was realised that key personnel were highly successful if not eminent educators in their own right. Concern was particularly high when it was announced that a school in Guildford was to be the first under private management in England. This is a specialist school now known as the Kings College of the Arts and Technology, managed by the 3E’s (‘education, education, education’), a non-profit company led by successful leaders in schools and school systems.

There have, for example, been three efforts over the last decade to establish a successful school on the site in Guildford. The original Park Barn School was re-named Kings Manor under a new principal in 1993. It was closed on 31 August 2000 and re-opened on 1 September 2000 under its new name of the Kings College of the Arts and Technology. Enrolments have grown from about 280 to about 750 in three years and the ceiling of about 1100 will be reached soon. Local primary schools would previously not recommend the school but it is now the destination of choice.

**Community action networks**

The Community Action Network was established about twenty years ago. In partnership with Rural Net, it has built the largest network of voluntary organisations in the country, with over 750 members connecting the social, business and public sectors. It works in some of the most deprived areas in the country. The network has developed a CAN Academy Model for application at the local, regional and national levels. The aims of the model include to:

- Improve the quality of educational achievement in schools by developing partnerships beyond the classroom with local social entrepreneurs, voluntary groups, health and social services, further and higher education, business, crime prevention and others
- Tackle the causes and effects of poverty by integrating education, health, welfare and employment opportunities
- Integrate schools with their communities by building on these partnerships to tackle disadvantage
- Support schools to become a visible and positive force in the local community and develop the infrastructure they need to manage community links and programs
- Connect failing schools with a support network of both successful, enterprising schools and less successful schools beyond the local boundaries
- Develop strong school leadership teams who are committed social entrepreneurs
- Establish in all schools an ‘enterprise culture’ that creates a flexible workforce ready to respond to a changing job market
- Create a pathfinder model that can be replicated across the country and share best practice between partnership schools

(Adapted from CAN, 2003, pp. 6 – 7)

**Abandonment**

An example of abandonment is provided in the experience of George Spencer Foundation School and Technology College, a specialist school in Nottinghamshire, England. Abandoned at George Spencer have been the traditional hours that limit the school day and the concept of ‘key stages’, so that learning in Key Stage 3 (lower secondary) and Key Stage 4 (upper secondary) has been replaced by an ‘R Phase’, focusing on resilience, resourcefulness and reflection (drawing on the work of Claxton, 1999 who drew on Western and Eastern ideas about learning), moving to an ‘I Phase’ concerned with independence, interdependence and individualisation. The shift has been from a tactical approach to a strategic approach, from short term planning to long term planning, and from a focus on teaching to a focus on learning. Outcomes include a very positive assessment of learning environment by the Office
for Standards in Education (OFSTED), with 88 percent of lessons receiving the highest grades in 2002 (the national average is about 44 percent) and the best A* - C results at Key Stage 4 of any state school in Nottinghamshire (75 percent), reflecting significant ‘added value’, given more or less average levels of achievement on entry. The school participates in the Leading Edge program and maintains its reputation for innovation, being one of the first 15 city technology colleges, one of the first Beacon Schools, and one of the first Department for Education and Skills (DfES) Training Schools.

Knowledge management

As far as knowledge management is concerned, much has been accomplished through the National College for School Leadership that has achieved impressive success in less than five years. It enjoys an international reputation. A feature is the creation of learning networks for school leaders around the country. The Specialist Schools Trust also plays a prominent role in building leadership capacity and in knowledge management in secondary school transformation. The Trust promises more through the development of its international network iNET described above.

FROM INDIVIDUAL DEVELOPMENT TO SCHOOL DEVELOPMENT

Table 6 summarises the elements in the blueprint for leadership in the successful transformation of schools in the 21st century that will help ensure that:

All students in every setting should be literate and numerate and should acquire a capacity for life-long learning, leading to success and satisfaction as good citizens and productive workers in a knowledge economy.

Writing in Creating the Future School, Beare concluded an uplifting chapter about teachers for the school of the future with these words:

This terrain is not for the immature, the shallow, the unworthy, the unformed, or the uninformed, and society needs to be very careful about what people it commissions for this task’ (Beare, 2001, p. 185).

This is the challenge for leadership in the new millennium. This is the challenge in successfully moving from teacher development to school development and the transformation of schools in the 21st century.

Table 6: Blueprint for Transformation

<table>
<thead>
<tr>
<th>Component</th>
<th>Element</th>
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<tbody>
<tr>
<td>Tracks for change</td>
<td>1. Building systems of self-managing schools</td>
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<td></td>
<td>2. Unrelenting focus on learning outcomes</td>
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<td>3. Creating schools for the knowledge society</td>
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<td>Values defining the public good</td>
<td>1. Access</td>
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<td></td>
<td>2. Equity</td>
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<td></td>
<td>3. Choice</td>
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<td>4. Growth</td>
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<td>5. Efficiency</td>
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<td>6. Harmony</td>
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<tr>
<td>Dimensions of leadership</td>
<td>1. Strategic</td>
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<td>Domains of practice</td>
<td>Integrating themes</td>
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<td>---------------------</td>
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<tr>
<td>1. School design</td>
<td>1. Knowledge management</td>
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<tr>
<td>2. Networks</td>
<td>2. Abandonment</td>
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<tr>
<td>3. Curriculum</td>
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<td>4. Pedagogy</td>
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<td>5. Professionalism</td>
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<td>6. Educational</td>
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<td>7. Responsive</td>
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<td>8. Cultural</td>
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A blueprint for leadership for the successful transformation of schools in the 21st Century. Paper presented at the Educational Leadership in the New Millennium: From Teacher Development to School Development, Hong Kong, 7 November 2003. Caldwell, B. (2003b). The formation and transformation of the teaching profession. Paper presented at the 18th Annual Regional Conference of the International Baccalaureate Organisation, Asia-Pacific Region, Singapore, 21-23 March 2003. Caldwell, B. (2003c). Mission impossible? A strategic view of efforts to lead the transformation of schools. University of Me 21st century skills are key for student success in a rapidly changing world. Find definitions, the 8 key skills and ways to apply them in your school today. In the face of such rapid change, educators and activists are promoting 21st century skills to prepare students for an unknown future and jobs that have yet to be created. In this article, we'll look at: A definition of 21st century skills. Why 21st century skills are important. 8 essential 21st century learning skills. How to promote 21st century skills in your school. Plus, get a downloadable 21st century skills PDF to keep at your desk! What are 21st century skills? 21st century skills are a range of competencies, taught across all levels of education, that give students the skills they need. Further, leaders in the 21st century have another vital function i.e. they have to be the ideal role models for the coming generation and since anyone who has grown up over the last two decades would testify, they have been influenced by leaders from all occupations. For instance, it is common for people in their thirties now to admire and idolize business leaders like Steve Jobs, Bill Gates, Jack Welch, and NR Narayana Murthy. In the same way, the upcoming generation needs to have the current leaders of the business world as role models and hence a holistic approach that does not put profits.