

Women and Strengthening Capacity

by

Catherine Livingstone

Director, Telstra Corporation
Director, Macquarie Bank

Now we will move into particular economic challenges. I would like to set some macro contexts for this discussion, then my colleagues on the panel will work through in more detail some of the educational, technology and engineering aspects.

In this context, we believe social and economic sustainability is predicated on fostering a number of fundamental conditions. I want to highlight four that I believe are emerging as critical in terms of our capacity to build a sustainable future. Having made observations on these four, I'll close with a comment on governance.

The first element —intellectual capital. A deep resource of intellectual capital is absolutely essential. We must continue to foster this if we are to meet economic challenges. It goes without saying that we need a well-educated society at the core of ensuring a sustainable future. In fact, it is our lack of regard for sustainability that has now set us up for huge challenges—challenges that are going to demand extreme innovation, if you like, to re-achieve a sustainable balance across the myriad activities of the human race.

Education and intellectual capital are the essential ingredients of innovation. We all commit to education, but in the context of the second right answer, there are a couple of cautionary notes to sound. First is that we might fall into the trap of taking the outcomes of universal primary education for granted, and focus on investing in the secondary and tertiary stages of education. Research is showing that experiences in early childhood and primary years are a key determinant of overall educational outcomes, and that the return on investment is significantly higher at the primary age versus subsequent years. To draw on Australian research, \$1 spent at the primary level is the equivalent of \$7 spent at the tertiary and secondary levels.

So it is much more expensive to close education gaps as children get older. It is imperative that we increase the focus on primary education to ensure it achieves the required level of educational outcomes—and for the majority, not just for a capable few.

For sustainability principles to be pervasive, education must be pervasive. I would like to take issue with some of yesterday afternoon's discussion. It was a great discussion, but sustainability is as much the outcome of billions of individual actions as it is the outcome of business and government policy.

The second trap in education is that we fail to evolve desired outcomes with a view to the world into which the children are going as distinct from the world from which we

came. And the risk is that we load our curricula with more and more answers and crowd out the time for children to learn how to ask the questions. Imagine if we had really asked the question 100 years ago about the long-term consequences of CO2 emissions.

How many of us have sat through business and board meetings—50-page PowerPoint presentations, dense with data, when one insightful question might have been more appropriate. To my horror, I even find my children are required to present their school assignments in PowerPoint—it is a frightening concept.

It leads to the question of play. What we are finding in innovation research is that play is actually the highly constructive—playing helps you get from science to technology, then understand what technology can do. You can't learn to play as an adult—you have to have learned to play as a child, when your imagination is absolutely open.

Again, this is all to do with the environment of primary education.

As an extension of this, we need to ask questions. If we look at the rate at which science and technology developments confront us with complex social and ethical issues, which cannot be decoupled from the business outcomes that the technology is desired to achieve, it is clear we have to develop a society with a broad-based technological and literacy capacity to ask those questions, and in a timely manner.

Again, this comes back to early education where questioning skills are developed. We spoke about the genetically modified foods debate and the nuclear debate yesterday, and commented that we are not doing a good job of having those debates, from either side. Our ability to deal with these social and ethical issues has to be anchored at the early stages of our education.

I will close this discussion of education and intellectual capital with a comment on female literacy rates. We saw data this morning that these literacy rates, when compared with male rates, are being closed. But there is still a gap, and in many cases the male literacy rate is still too low.

Coming back to the education of young girls and women, we know there is a significant multiplier effect if you educate women, because it is the education level of the mother that is one of the most important indicators for the educational achievement and aspirations of the children, both male and female. The multiplier effect from female literacy is really significant.

That is my comment on intellectual capital as a resource in terms of addressing economic challenges. The fundamental skill is knowing how to frame the right questions.

The second element is health. Clearly, without a healthy society, a healthy population, the discussion about skills is academic. We have seen throughout the 20th century significant progress in countering the effects of diseases, although malaria and HIV/AIDS are still major challenges. But we have not achieved a disease-free world, which was a possibility canvassed in the early part of the 20th century when the dramatic effects of antibiotics were seen. We are also seeing worrying evidence of so-

called 'superbugs' and exotic diseases such as SARS coming through, and threats from epizootic diseases such as avian flu. Shifts in climactic conditions and the scale of international travel will increase the rate and spread and geographical footprint of these diseases.

But exacerbating these diseases is the increasing prevalence in many economies of the so-called 'affluence diseases'. We see horrifying increased rates of respiratory diseases caused by pollution; we have issues around obesity with the associated diabetes and cardiovascular conditions; we see diminished mental health; and we see the health-care consequences of an ageing population, which is affecting many of our economies. So two dynamics are at play here, and the second and more recent conditions cannot be addressed with straightforward drug therapy. I'll use obesity in children in Australia to illustrate the complexity: in Australia 25 per cent of children are overweight or obese. That is a frightening statistic in the context of the capacity of the next generation workforce.

We presumed that obesity was predominantly because of lack of exercise so we put in place a policy whereby children have to exercise more in school. But recent research probes this hypothesis and a report on it has just been released. It is not exercise that is the primary contributor [to obesity]. Exercise is important, but if it were the only contributor, we would have seen a rise in obesity rates in the 1960s, not the 1990s. The fundamental problem is the quantity and quality of the food being consumed. We have food relatively less expensive, fast food more accessible, increasing participation of women in the workforce, which is being encouraged by one policy measure — increased childcare. But then you have both parents working, both coming home tired at night and the concept of cooking a meal using fresh ingredients is about the last thing they can cope with. So you can see how this illustrates the policy challenges around some of the newer health issues and how they are significant and cut across other measures in the economy designed to stimulate economic growth.

The good news is that the right questions are now asked, and lifetime health is being seen as a personal responsibility, where I think women can make a particular contribution. Men are notoriously bad at taking health seriously and dealing with things openly, while women are conscious in this regard.

Nevertheless, at the macro level, the concern remains that the economic and social burden of the conjunction of these old and new diseases is the ultimate threat to a sustainable future. It suggests that a more nationally and globally integrated approach is needed to identify the deep interventions required to solve these issues sooner rather than later—and time is of the essence.

The third element we need to foster is a systems-based approach to business and public policy. I have just used the example of obesity, assuming it is one cause and it is now, in fact, another cause that intersects with what we are trying to do positively. That just demonstrates that the reductionist approach we have tended to employ does not work in these complex situations. We are living and working in what economists, scientists and philosophers are calling a complex system. At the risk of getting myself out of my depth, can I just draw the distinction because it is really important when we are thinking of longer-term measures. The distinction here is between reductionism—an approach that presumes that complexity is the sum of simpler components, for

each of which a linear cause and effect outcome can be predicted, so you can work down to the detail, do the right thing, add it up and you will come up with the right answer.

By contrast, a complex system recognises the existence of a large number of independent actors, all with their own objectives, a dynamic set of relationships, extensive feedback loops where the past has a significant influence on the future, and predictions focus on possible outcomes rather than deterministic outcomes.

We are seeing the beginnings of this understanding coming through business. We have triple bottom line corporate social responsibility reporting. It is a bit of a risk but is seen as a compliance regulatory measure rather than a strategic one. At least we are seeing business acknowledge the reality that there are second-order consequences from their business strategies, and globalisation is facilitating and necessitating this awareness.

Public policy also needs to move on from its reductionism approach. We have individual policy measures that are virtuous when considered in isolation, but that can have perverse outcomes when put together with others. This systems approach is not just a national issue. It is clear that in some contexts, not just a whole-of-government but a whole-of-world approach is needed if policy is to be effective. I think we have seen the importance of this in earlier sessions around the topic of gender analysis.

I cannot emphasise enough the importance of adopting a systems approach to our thinking, embracing the complexity, not denying it. Here again I think women have a significant contribution because we can cope with complexity and physiologically our brains are more networked and can cope with multiple variables.

My fourth and final element, which we need to be alert to in terms of economic challenges, is the application of systems-based thinking to the potential and imminent social dislocation associated with climate shifts. Globalisation will amplify these effects as economies move to take arbitrage advantage and relatedly, there will probably be significant transfers of standards of living—and a redefinition of what constitutes a high standard of living, particularly for economies that have taken for granted ready access to cheap water and power. There will inevitably be a reallocation of household budgets as the costs of externalities are built into the price of goods and services. There will be significant population relocations. Let's look at the situation in Darfur. One contributor to that is the nomadic herders from the north moving into the settled farming lands of the south, all in search of a scarce resource—water.

It is also likely that these significant transitions will occur within the next generation. We do not have time to make too many mistakes, which is why I make the plea again that we go back to systems modelling, which is routine in science but not seen so much in business or public policy. Systems modelling will help us avoid making mistakes.

I think too in terms of this dislocation and transition in the next generation, skills such as engineering will be particularly important so we can come up with practical and robust solutions.

Just to recap, I have highlighted four elements needed to strengthen our capacity to build a sustainable economic future. One is intellectual capital with a focus on primary age questioning ability. One is integrated approaches to population health. One is the systems approaches to business and public policy strategy, and the last is applying a whole-system approach to climate shift consequences.

But achieving success with these elements will necessitate examining our governance infrastructure and evolving it to meet these challenges. The world is the biggest business there is, with billions of stakeholders. We can no longer regard it as a loose association of countries. Rather, we should recognise that it is an interdependent collection of business units, some of which are economies, some of which are corporations (as we know, some corporations are larger than economies). In both cases, some are mature and some are start-ups.

In the parlance of business, I believe the world is at an inflection point. We are confronted with strategic choices, some of which involve deep interventions because the design tolerances of our national and global structures and processes are being exceeded. It is so important that we do not resile from the magnitude of the task of establishing a global system of cooperative governance. It is the minimum legacy we owe to the coming generation, which has inherited from us the unenviable task of putting the future on a sustainable footing.