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By Professor Ian Chubb AC

Our compact with the future

FOR the bulk of human history, a child could expect to live in more or less the same way as their parents, their parents' parents, and probably their parents as well.

There were disruptive events, like wars and famine. Perhaps some individuals had the initiative to break the mould.

But, for the most part, change was slow and incremental, whether it was a cathedral that took generations to build or farming practices that took centuries to evolve.

The outlook is not the same today.

For a start, we live longer. Over 8000 generations, a baby's odds of living to 100 have shifted from one in 20 million to one in 50, if they are lucky enough to be born in some parts of the world. Most of that leap was made in the past century, chiefly in the past 30 years.

So many more of us have now far more time to see how progress unfolds.

We also have to think about the possibilities of progress in different ways, because we live with the reality of constant change.

How would you go about your life if you could live to 120 – perhaps a century after your children were born, and 50 years past the current retirement age? How would you make a living in an economy where robots can do most of the work, and the value of human labour plummets? How would you cope if you prepared for the old jobs without building the new? How would you imagine your world if you never saw it free from an internet connection?

Perhaps we can't say. But most of us have lived long enough, and seen enough, to know that anything we can imagine might be possible – as well as a great many things we can't.

Our children have to think of the shape of our lives as simply their starting point – not their pattern, and certainly not their destination.

Like every generation before us, we still care deeply for our children and want them to enjoy the best of all possible worlds. Unlike our ancestors, we cannot assume that what is "best" – or even what is possible – will be the things we have and want today.

That means we need a new sort of compact with the future: a compact we act on today.

We have to prepare our children not just to be like us – the purpose of education for thousands of years – but to work out for themselves how they ought to be different. And we have to think about the tools that our communities will need to generate new sources of wealth and jobs, when those we have today are irrelevant or exhausted.

Politicians and business leaders talk a great deal about "innovation", "disruption" and other words that go in and out with the times.

What they are really talking about, at least as I understand it, is the compact on which all of our futures rest.

Science is not the only thing that we need to make a better Australia, with the capacity to keep on getting better. But it is impossible to imagine how a better Australia could exist without it.

The nation we want would be economically diverse, because it builds industries and jobs on the renewable resource of human ideas. It would be technologically adept, because it neither shies from new technologies nor mistakes gadgets and fads for helpful innovation. It would be a healthy and happy community, because it invests in the research to look after ourselves and the planet, and applies new knowledge in intelligent ways.

How can we go about it? I don't think there is any one answer, only many millions of decisions that have to be made in industry and education, as well as government. We might make those decisions add up to something greater than their sum if we thought, planned and acted with a common plan.

Of course we need to support scientists and the vital work they do and, given that our resources are limited, it seems to me that we should use what we do have as strategically as we can.

But we wouldn't call ourselves a great sporting nation because a few of our athletes do well at the Olympics; and we won't be a great science nation if we think of science as that distant thing that scientists do.

We also need businesses that look for every opportunity to take advantage of science, and be constantly in contact with universities and research agencies where ideas might lie. We need people who understand science working not just in laboratories, but running farms, planning cities, designing homes.

Above all, we need science and mathematics to be central to the school curriculum – taught in inspiring ways by teachers we support to do the most vital job any person can do.

We need to be, as C.P. Snow once said, people with the future in their bones.

We may never know what our children, and their children, make of their side of our compact.

But surely, we have the courage to live up to ours today.

Professor lan Chubb is Australia's chief scientist. He will deliver a public lecture as guest of Regional Development Australia Hunter at the Newcastle City Hall at 4.30pm on Tuesday, July 28

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