

## UNIVERSITY OF CANBERRA GRADUATION SPEECH – Will Steffen

Chancellor Tom Calma, Vice-Chancellor Stephen Parker, Members of the Faculty, Ladies and Gentlemen, and – most importantly of all – Graduates of the Class of 2015 of the University of Canberra.

Higher education has been in the news quite a bit recently. Much of the discourse, though, has been misdirected in my view. The emphasis has been on economics – recovering, or reducing, the costs of higher education; valuing a university degree only by the earning power it gives the graduate; placing more of the burden on the students, and so on.

The debate has prompted me to look back on my own university education, which was quite a long time ago.

I graduated in 1970 from the University of Missouri in the United States, and was dead set on being an engineer – that is, until my last year. That was because, as is the case for most universities in the US, students are required to take courses, actually a large number of courses, outside of their major.

Missouri has a very good engineering school, but the university was insistent that all of us budding engineers get out of our comfort zone. I took courses in sociology, economics, American history and even music appreciation (even though I am tone-deaf).

But the course that changed the direction of my life was the history of technology, which sounds like a rather boring course unless you are an engineer. Much of the mark for the course depended on the final exam. I studied hard –who invented what, dates of major technological advances, the gory details of the industrial revolution, and so on. I arrived at the class for the exam, which, much to everyone’s surprise, consisted of only one question:

“How do you define ‘progress’ and have we made any?”

That was the most challenging exam I was ever set; it was a profound question that has stayed with me ever since. It was then that I realised the true value of a university education – to be able to deal effectively with questions like that, and all of the implications such questions entail.

So I decided then not to go to work for an oil company and make lots of money, but rather to continue my education and then launch into a meandering career that has been trying to deal with questions such as the one set in that history of technology exam.

Fast-forward a few decades.

I found myself in Sweden, as director of a large international research program studying how planet Earth is changing and why. Another one of those profound questions.

Living in Sweden was an eye-opener. They do some radical things there:

- About half of the members of Parliament are women.
- They take a bi-partisan approach to major societal issues like climate change.
- Of all the Western European countries, they have reduced their greenhouse gas emissions the fastest and, simultaneously, grown their economy the most.
- Music is their second largest export.
- University education is free for all Swedish citizens.

That last one sounds radical given our recent national discussion about tertiary education, but perhaps it would not have been viewed as radical just a few decades ago here in Australia.

I asked a Swedish colleague why Sweden puts a large amount of public resources into providing a university education for all of its citizens. She responded that to have an effective democracy in the 21<sup>st</sup> century, Sweden needed well-educated citizens; and “well-educated” now implies a university education, not just a high school diploma.

I was struck by the fact that the emphasis there was not so much on training people for careers (which is important and which they also do well in Sweden), but rather on the need in a well-functioning democracy for a highly educated population.

And now we turn to the challenges that you face as you leave the University of Canberra with your degree.

University graduates are going out into a vastly different world from the one that I entered when I left university. In fact, you are going out into the world at a time that is absolutely unique in the history of humans on planet Earth.

We are all wealthier and more connected than ever before, and hundreds of millions of people are being brought out of absolute poverty. Yet, inequality in income and in wealth is growing throughout the world, leading to poorer social outcomes even in the wealthy countries of the world like ours.

Less than 20% of the world’s population, those of us in the wealthy countries, consume about 75% of the resources that humanity uses.

But there is an even greater concern now. The “human enterprise” – the totality of human activities – is now outgrowing planet Earth, our home planet. We are now beginning to destabilise our own life support system. And we now have the knowledge that it is our own activities that are destabilising the planetary system. We are the first generation of humans to be in such a position.

Since 1950, our resource use – fossil fuels, water, phosphorus and nitrogen, domestic animals, wood products, cement – has been growing at astounding rates never before seen in human history.

In the next three decades, we will build more urban areas than in all of previous human history combined.

Carbon dioxide levels in the atmosphere are now higher than at any other time over the past 800,000 years, and probably over millions of years.

The climate is being destabilised – longer and more intense heatwaves, heavier rainfall, more extreme bushfire weather, the drying of our most important agricultural regions.

We have entered the Earth's sixth great extinction event, but the first one driven by a biological species – us.

Many scientists now agree that we have now entered a new geological epoch in Earth history - the Anthropocene, an epoch entirely driven by human activities.

So what does all of this mean for you?

It is easy to see the future as a doom-and-gloom scenario. No doubt the next few decades will indeed be a time of enormous change. But it will also be a time of great opportunity. It will be an exciting time to be alive.

One thing is certain. A business-as-usual pathway into the future – the post-World War II pathway of increasing energy use, sprawling cities, ever-rising material consumption, and increasing individualism - is on its way out. So where are we going?

This is where you come.

No one can predict the future but there are several ways that you can help shape the future. No matter what you have studied at UC, there is a role for you in the great transformation that is needed to build a just and sustainable global society.

First, develop your chosen career to the best of your ability.

Second, be creative. Think and work outside of the square. Most of 21<sup>st</sup> century challenges lie across traditional disciplines and areas of expertise, not within them.

Third, become better, wiser, more well-informed citizens. Our Australian democracy and the global community need active, well-educated citizens.

Last, but certainly not least, engage with the difficult questions like the one that was posed to me back in 1970, questions that underpin the fundamental directions that societies should take.

So my bottom-line message to you is this:

Go out into the world with confidence, into a period that is unprecedented in human history. You have an excellent education, and you have all the tools to contribute to the great transformation that we need.

Enjoy the ride!