

UNIVERSITY OF SOUTH AUSTRALIA GRADUATION CEREMONY

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Chancellor, Deputy Chancellor, Vice-Chancellor, Members of the University; Graduates; ladies and gentlemen, thank you for the opportunity to speak at today's graduation.

Graduands, congratulations on this tremendous achievement. Today is the culmination of many years of hard work. The lectures, exams, the last minute assignments, and the late nights (the endless cups of coffee!). You made it!

As you embark on the next stage in your lives, I hope that you remember and cherish this time in your life. Remember fondly not only what you learned, but the good times that you had, and cherish and maintain the friendships you've formed, many of which you will find are lifelong.

Parents, partners and supporters! Congratulations to you too. I know from personal experience that many of our graduates wouldn't be here today without your care, nurturing, encouragement and love.

As you make the transition from student life into working life, you may have a range of different emotions. Excitement! Relief! Satisfaction! It's understandable that some of you may feel apprehensive. What exactly might the future hold? The current economic climate doesn't

bode very well for some job seekers. But the current economic crisis should remind us that we need to develop an economy that has innovation built into its bottom line. Why? Because innovation increases productivity, improves our standard of living, and underpins the health, both social and economic, of our nation.

I was at a marvellous celebration on Saturday night of IBM's 20 years of sponsorship of Opera Australia. And while sitting among the props of Verdi's Aida – an opera which opened in Cairo inspired by one of man's grandest projects, the Suez Canal, I listened enthralled by what Opera Australia's CEO, Adrian Collette, had to say.

Adrian drew out the links between innovation, commercial confidence and social development. History shows us that great social developments arise in times of great commercial confidence. The Renaissance is one such example. Adrian drew out the theme in relation to the creative arts – as you would expect – but it applies equally to mathematics, science and technology!

He said: *“As commerce thrives, so too does artistic expression – radically re-defining the way we see the world. Artists respond to the overwhelming commercial energy of their time. It is this subtle but highly influential ‘exchange’ that is at the root of innovation and social development.”*

And he went on: *“Now think of what is the predominant commercial force in today's economic world – globalization! ... Globalization can mean many things, but essentially the world has opened up like never before – and it is commerce, not politics, that opened it up – relentlessly, energetically looking for new markets and new technologies. And the key to globalization - this world of commercial exchange that no*

longer has a reassuring map or a safety net - is innovation. Particularly for an economy like Australia, innovation is the key that unlocks the treasures of the new international order as surely as advances in navigation unlocked the treasures of the old world to the economic powerhouses of Europe.”

This is an enlightened view! Indeed, I believe we are in the early part of a new age of enlightenment – a new age of innovation.

And that’s where you come in.

Innovation and technology are critical to Australia’s, indeed, to the world’s future and to its economic resilience.

And while you probably don’t realise it now, the future economic prosperity of Australia depends, in part, on you.

For all of you graduating today, the fields in which you have gained expertise will become more and more important in the coming years.

Many of the world’s most worrying problems, including global warming and climate change, are challenges that you will have to address.

Your knowledge in information technology, communications, design, materials and manufacturing, science, engineering, mathematics and statistics will be critical for addressing future national and global challenges related to agriculture, sustainable cities, infrastructure planning, health, defence and security.

The degrees that you have all earned today, grant you exciting, even exhilarating, prospects for the future. Your careers will continually evolve, develop, and grow.

We are living through an amazing technological revolution – and this is only the beginning. In the future, technology will underpin almost every single aspect of our lives. The possibilities for you all are endless.

So now, as you contemplate your careers, and seek to carve out your own unique position in the world, I encourage you all to embark on that journey with enthusiasm, determination, commitment and passion.

And I want to leave you with three thoughts:

First, settling into a new job is rarely a breeze. It takes time to feel at home in an occupation – to establish relationships and mutual trust, and to build competence and confidence in what you're doing.

Around you, there may be pressure to fit in and conform. It might feel more comfortable to do things the way they have always been done. And indeed, sometimes that is the best way!

But remember, your fresh and unique perspective is valuable, and you shouldn't be afraid to articulate your thoughts and observations.

It takes a certain confidence and courage to do this, but I strongly encourage you all to question and critique the established order.

Think outside the box. Offer your ideas freely and enthusiastically, and without fear or restraint. And don't be

afraid to take risks. Great achievements rarely come without great risk.

But above all, use your imagination. Give yourself time to think. Develop a bold vision, never lose sight of it, and do everything you can to make your vision become a reality.

Share it with others – its quality will improve as you test your ideas. Sure, some will say you are wasting your time! Quite eminent and successful people told me I was when I shared my ideas about building silicon chips for wireless networks. – networking unplugged we eventually called it, a name inspired by the Eric Clapton album! Why would you want wireless when you get better performance at your desk with ethernet? Well, OKAY, occasionally, but it won't be a big market, I was told.

I listened, developed my ideas, continued the work, and expanded the vision to build chips that allowed speeds closer to wired solutions.

Second, learn to collaborate with others. The problems of today are not going to be solved by loners. The secret to successful collaboration is to openly agree on the mutual benefit equation and then work towards achieving value for all partners in the joint effort.

We have a very big problem with collaboration in Australia. We are last in the OECD rankings of companies that collaborate with research agencies; and second last in front of Turkey, with companies that collaborate with each other.

Finally, I want to encourage you to think **globally**.

And I want to urge this especially for the information and communications technology graduates. I've been in the

ICT industry for 35 years. I can see the possibilities that a strong ICT sector holds for our future. I can see that technology and innovation are key to Australia's future economic prosperity. But a lot of very influential people can't or don't believe it – they mouth the words without enthusiasm or action. Perhaps they are suffering from technology fatigue!

If you look at different sectors of Australia's economy, our export performance, which is a measure of global competitiveness, is respectable relative to our 1.7% GDP weight in the world. Australia is particularly strong in a number of sectors. In mining we are 4.4% and in agriculture about 2.3% of world volume. Even in manufacturing, where many think we are a cot case, we are about 1.3%. But in ICT ...

In 2007, Australia imported almost \$26 billion of ICT goods and services, and exported just over \$5 billion, resulting in a \$21 billion trade deficit in the sector. Australia's overall trade deficit that year was just \$11B.

ICT exports represent only 0.17% of world volume.

Australia simply doesn't perform well enough in this area. This needs to change!

The result defies logic – our ICT education is first rate. Work overseas and you will find you are equipped as well as the best in any country!

To go about turning this around, we need to build sustainable technological competitive advantage. That requires research. Currently, Australian companies with a few exceptions, do not use ICT research to gain competitive advantage.

This has to change.

And currently, the majority of the people within the ICT industry don't think globally.

This also has to change.

It's important that the next generation of electrical engineers, computer scientists, mathematicians, statisticians, and whatever other professions you embark on, take it upon yourselves to change this situation.

It is no easy task. The challenges that you face are immense. But the tools that your degree has bestowed upon you, and your untainted perspective, fresh ideas and enthusiasm equip you well to address them.

I wish you every success.