Bruce Linn – UniSA Graduation Address 12 Aug 2015

Distinguished Guests, Ladies & Gentlemen,
and especially, Graduands commencing the next stage in your life journey.

In the few minutes I have today, I want to speak about two things;
1) your future careers; and
2) the importance of STEM education.

I would like to begin and end with a quote from someone who has been an inspiration to me throughout my life and career, Albert Einstein - who said:

"The true sign of intelligence is not knowledge but imagination."

How does this apply to your future careers?

Some of you have studied a specific vocational program and will have a clear idea of what your career looks like but many have chosen more generic studies and may not have such a clear career path mapped out. You have all acquired knowledge but you may not yet have imagined your future.

My own university studies undertaken some 40 years ago were in that latter category. I had gained knowledge but little idea of what career I wanted to pursue upon graduating with a general degree in Science majoring in the seemingly unlikely fields of Biochemistry and Pharmacology.

I did realise that after 5 years at University trying to figure out what career I wanted, and with a wife who was expecting our first child, I couldn't afford to spend any longer at University and, in any case, the answer was probably not to be found there.

I was fortunate enough to be offered a part ownership of a small electronics business which drew me into the world of commerce and the embryonic field of digital electronics or IT as we know it today. As a son of a medical family this was not a well understood choice at home and I was on my own in uncharted waters.
However, it was to prove a pivotal choice since I quickly saw the vision and promise of digital technology that eventually led me to a long and exciting career in IT.

There was another fork in the road for my career about 15 years later when I recognised (earlier than almost anyone around me) the emerging importance of digital networks and in particular the fledgling Internet. This insight launched me into my first serious CEO role - of an early Internet company - in my very early 40's. For the first time I felt that this was my true vocation and the subsequent 20 years or so of my career have been the most exciting and fulfilling of my life.

So I encourage all of you, even those of you who are entering quite clearly defined vocational pathways or are mature aged students to keep your minds open to career paths that today may not be obvious (or may not even exist!). To be truly fulfilled in your careers in the 21st century this open mindedness or imagination, as Einstein put it, is very likely to be required.

The late Steve Jobs summed it up nicely when he said: "Your work is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work is to love what you do. If you haven't found it yet, keep looking. Don't settle. As with all matters of the heart, you'll know when you find it."

I turn now to my second topic, the importance of STEM education. (STEM is an acronym for Science, Technology, Engineering and Maths.)

All of the graduands receiving awards at today's ceremony come from the Divisions of IT, Engineering, Environment & Health Sciences. These are all STEM faculties and to some degree or other your program of study depended on a knowledge of one or more of these disciplines.

A report from the Australian Industries Group (AIG) in March this year concluded that STEM skills are increasingly important for the competitiveness of the Australian economy.
The Australian Bureau of Statistics has reported that STEM skills jobs grew at about 1.5 times the rate of other jobs in Australia in recent years.

Yet, the AIG report concluded that Australia is:
- under-performing internationally compared to STEM strong countries;
- the participation by primary and secondary school students in STEM related subjects is decreasing and performance is below many comparable countries; and
- participation by university students in STEM related disciplines is not keeping pace with the needs of the economy and is low compared to other like-economies.

The Australian Government Department of Education and Training seems to have recognised this announcing in July 2015 a special program entitled "Restoring the focus on STEM in Schools". The initiative should be applauded but the additional resources applied to it are plainly inadequate to meet the need. A one off allocation of $12M across the nation to address these serious shortcomings in a system of 3.7M primary and secondary students. That equates to $3.25 per student.

Much more needs to be done.

I implore you, as those who understand the importance of STEM education particularly at primary and secondary level to become STEM education advocates. Our collective future prosperity depends on this.

Consider therefore (especially those who will remain in Australia) what you as STEM graduates can do to advance this need. You might volunteer to talk to school students about your careers to inspire them to add STEM subjects to their curriculum and to pursue careers in STEM disciplines, or you might advocate to political leadership its importance or lead community discussion and debate on the issue.

Finally, I promised to end with another Einstein quote - please apply gender neutrality to his quote (as I am sure would have been his intent):

"Try not to become a man of success, but rather try to become a man of value."

I've always found that a particularly good aspiration.

Congratulations on your significant achievements that we recognise today and I wish you all the very best for the future.