First, I acknowledge the Ngunnawal people, traditional custodians of the land on which we meet today and pay my respects to their Elders past, present and emerging. I extend that respect to Aboriginal and Torres Strait Islander people here today.

Congratulations Graduates!

I am honoured to speak to you today, as you embark on a new journey as graduates in the fields of science and technology. Congratulations on your tremendous achievement!

Please know that your place in history is assured, you are possibly among the last cohort to graduate University with limited interference from Artificial Intelligence AI….

In years to come you will be able to say about your education something like what I say to my kids – You kids with AI have it easy these days – when I was studying all we had was the Internet - it was way harder - you actually had to search Wikipedia and read whole articles in order to distil for yourself a superficial amount of unreliable information.

Of course, when I was young - if you wanted to find out a superficial amount of unreliable information you had to search through a massive set of leather-

bound books called an Encyclopedia and you MIGHT find a snippet of almost certainly out of date information.

So what does a tech minded woman with an occasional speech to deliver do – she enlists some help - hello newest AI - large language models. Now I am sure the university says 'don't use ChatGPT for assignments' but they didn't say don't use it for speeches… anyway here goes…

As someone who has spent over thirty years in the tech industry, I have learned a few things about what it takes to be successful. It is important to have clear goals and to know what you want to achieve in your career.

Hmm… actually that's rubbish. Very few people have clear goals and a defined career path all worked out straight after graduating. Current estimates suggest that a person entering the workforce in Australia is likely to have twelve jobs in their working life and that number is increasing. Recent ABS job mobility data shows that in the 12 months to February 2022 1.3m or 9.5% of people in the workforce changed jobs. Which is the highest rate of job mobility since 2012. Professionals made up the largest share of this figure at 22%.

In the science and technology space this phenomenon is even more pronounced. The rate of change has been staggering. Technologies that we take for granted today were largely unknown even 5 years ago and the

technologies we will be reliant on in 5 years are just emerging. In this environment it will be unlikely that any of us here today can predict how that level of change will play out in our working and personal lives.

What can I tell you (other than good luck) that could be of any use to you as you head into your careers in science and technology?

I asked the AI oracle that too and it responded:

It is equally important to be flexible and adaptable, as sometimes the path to achieving your goals may not be exactly as you had envisioned it.

Technology is constantly evolving, and you must be willing to learn and adapt to new technologies in order to stay relevant. This means that you must be willing to step outside of your comfort zone and try new things.

Well, that was a little better but still no great insights. I suppose that illustrates the advantages and limitations of the AI language models, at least as they currently stand. They can rapidly draw upon a vast collection of statements about a topic, distil the common threads and put them in a standard structure -- but does it add any value? That is where the human comes in.

There is an important place for human judgment and decision-making. While AI can be incredibly powerful and efficient at processing large amounts of data, we haven't created Artificial General Intelligence yet. We haven't replaced

ourselves… yet. AI lacks the context and empathy that human decision-makers have. As such, it is important to ensure that there is always a human in the loop when making important decisions based on AI-generated insights.

In my work it's something I relearn every day. I firmly believe that the Information Technology industry is a people industry. People develop tech <u>for</u> people. People develop tech <u>with</u> people. It is People who <u>use</u> tech.

As scientists and engineers, it can be very easy to become overly focussed on science and technology itself and the possibilities it provides. However, we must continually bear in mind the human purpose or outcome. So as graduates I remind you - Your humanity is important, and it is your strength. Focus on your authenticity and self-awareness as a person.

In the words of one of our great modern day philosophers, Dolly Parton, "Find out who you are and do it on purpose".

You will bring the most to any situation when you bring your authentic self, but also think about others. In my career I have found it almost impossible to achieve anything worthwhile **alone**. So, I have sought to be part of and build teams of skilled people who support each other to achieve our goals. These partnerships and relationships can be very rewarding and a source of great emotional and practical support. Some have lasted over many years and many

job changes. Invest most of your effort in your relationships both at work and at home, they will serve you well.

I have also come to understand that diversity is important. Diversity is a source of real strength in teams and networks. Seeking input and feedback from a wide a span of experiences provides insights and opportunities that otherwise would be lost.

In the technology industry this can be a real challenge as the processes that produce technology graduates have traditionally not been welcoming or facilitative of women or culturally and linguistically diverse representation. Seeking ways to increase the participation and career opportunities for women in IT is a key interest for me. And I would encourage you all – regardless of gender or background to keep looking for ways to increase the diversity of thought present in your work and organisations. Diversity will be one way to ensure that whatever technology comes along, society will benefit from as many viewpoints as possible.

ChatGPT also returned some statements about how great Universities are for encouraging a culture of lifelong learning. Given our present context it would be churlish me not to agree.

I do think that it is crucial not only for a successful career but also for personal growth to maintain a learning and inquiring mindset. There are certainly a seemingly overwhelming and never-ending tide of problems that require innovative and even revolutionary minds to tackle them.

I personally have returned regularly to undertake university studies and this has proven to be a great way to engage with complex areas of knowledge in a structured and consistent way. However, I have also learned not to underestimate the insights to be gained from more informal approaches, from TV shows, from music lyrics and comedians, from Tiktok. Mostly from listening carefully and speaking to friends old and new. Learning is happening everywhere.

Now? You may or may not, be able to tell which part of what I have just said to you was written by the AI.

One important thing to remember is that AI is only as unbiased and fair as the data and algorithms used to create it. As such, it is important to ensure that AI systems are designed by people who remember their humanity and keep fairness and ethical considerations in mind.

I was lucky enough this week to hear former US President Obama speak in Sydney, and one of the things he said that struck a chord with me, is that AI is a

the big challenge of our time and with the rise of the 'deep fake' it is more important than ever for us to teach each other how to recognise fact from fiction. How to tell what is and isn't real.

So as newly graduating scientists and technologists – it will be on you to be part of that conversation about truth and reality. Keep questioning, wondering, and listening for diverse viewpoints and build authentic human relationships. We might just keep the AI overlords under control.

Congratulations Graduates