



Professor Mark Hoffman Speech

UNSW Engineering Facing Equality Portrait Series

Welcome, to the launch of the Facing Equality Exhibition.

I am Mark Hoffman, Dean of UNSW Engineering.

As we begin, I acknowledge the Bedegal people, who are the Traditional Custodians of the land on which the University is built.

I also would like to pay my respects to their Elders past and present, and to extend that respect to other Aboriginal and Torres Strait Islanders who may be with us.

Thank you for joining us tonight for the launch of this exhibition.

This is a wonderful innovation in our University's life.

I say 'innovation' because it's been the tradition of universities and great institutions to commission portraits, statues and memorials after its leaders.

We do so because we understand that what you honour is what you value.

And yes, we should honour long-standing service, leading and accomplishment – and we do that very well.

This exhibition, reminds us of something else that we value.

It reminds us that what we value most in this university is our students.

We see in them just one thing – potential.

A potential that is natural outworking of their gender, sexuality, race, religion and life experience. In the past, society hid from these things – now we celebrate and embrace them because creativity is based in bringing your full self to every situation you may be in.

And it's not just our students we celebrate, it's our graduates as well. Our alums.

When a student leaves this university – as a graduate they don't cease to be part of the university. If anything, they become the embodiment of our community in the wider world.

This is what we celebrate tonight.

Our students and our graduates are not homogenous – but neither is the work that they do.

Engineers are the problem solvers.

The philosophers at our university ‘ask why’, we ask ‘how’.

How do we solve this problem? How do we use less energy? How do we move water to people? How do we keep that water clean? How do we construct buildings and infrastructure that was unimagined a generation ago?

We ask the question ‘how’ in the midst of the most extraordinary times.

We are living in what Klaus Schwab of the World Economic Forum has called the Fourth Industrial Revolution.

The First Industrial Revolution saw humanity harness the power of water and steam to mechanize production.

The Second Industrial Revolution saw the emergence of electric power mass production.

The Third Revolution saw the emergence of electronics and IT.

And this Fourth Revolution has seen the creation of the digital world and the unparalleled acceleration of innovation across every field of endeavour.

Robotics, AI, the internet of things, and nanotechnology are no longer the imaginings of science fiction. They are our living reality today.

An integral part of this revolution has been how we see people.

Engineering is a service profession – and our service, no matter what the environment is clear: we are problem solvers.

Unlike, any other profession, we work cross-functionally, because problem solving inevitably involves incorporating multiple perspectives.

But you can’t have multiple perspectives – if you all look the same, or think the same, or seem to emulate the drab uniformity of generations past.

I’m allowed to say generations past – because I am of a generation almost past.

For me, as a head of faculty, the great thrill of my work is knowing that even though that the majority of my working life is behind me – for those I work with, most of their work and innovation is ahead of them.

To influence, mentor, guide and engage with the engineers of tomorrow is a great privilege.

We understand at UNSW Engineering that if we are to be the problem solvers of this world, then we must reflect our world and our communities in every possible way.

In recent years, I've discovered something – and that is that our best students are those you have faced challenges squarely in the eye.

Sometimes that challenge is distance, sometimes its poor schooling, sometimes its prejudice, sometimes its injury or disability – again and again, we see the capacity of the human mind, or indeed the human spirit to overcome.

Once there was a drab uniformity in our engineers, today they come from so many backgrounds.

Our work is to ensure that our engineers bring the multiple perspectives of the world they serve.

Engineering is a service profession.

If we are going to serve society then the profession must reflect the make-up of society.

But our good intentions must always be backed by actions – and I am very proud of what we do as a university and a faculty to open the doors of engineering to as many as possible.

It is not easy to get into UNSW Engineering.

To get into UNSW Engineering you need an ATAR of 93. Ninety per cent of our students enter that way. But through the Faculty of Engineering Admissions Scheme we set aside 10 per cent of places for people who show strong aptitude for engineering in other ways.

We track these students. The remarkable thing is that within 12 months their academic performance is indistinguishable from the cohort who got ATARs above 93

We also offer rural scholarships because we know that educational opportunities aren't as good outside of our cities – and what do we find? These students bring a perspective and passion about some of our regional engineering challenges.

As well, many students from low SES backgrounds can access financial support

Our work is not just to find the broadest and deepest pool of capable young prospective engineers, it is also to give him a breadth of experience that allows them to see the untold opportunities that are offered engineers in this Fourth Industrial Revolution.

At UNSW Engineering, we take solar-cars to regional areas, students can undertake 'engineering world health' and repaired medical devices and equipment in Cambodia, or undertake summer school in Uganda.

And it's not just a one-way street, engineering students from Uganda, many of whom have never travelled outside their land, travel to UNSW and experience our learning environment for a short-time.

You see, you can't change the world, unless you understand the world.

Indeed, it was the Catholic theologian Augustine who said "The world is a book, and those who do not travel read only a page".

These portraits don't just reflect what we honour, they reflect real lives as well. Lives with many pages.

I'm pleased to have so many of our exhibition participants here tonight.

I'd now like to introduce one of our participants Renee Wootton

Renee is a graduate of UNSW Engineering. She is a Tharwal woman who is a Graduate Aerospace Engineer at Qantas¹. Renee has currently taken a leave of absence from work with the blessing of Qantas to work with a friend to develop a tech start up that they hope to launch before the end of the year.

Renee is everything we hope for in a graduate.

Beyond managing a successful career – she wants to change the world around her.

She volunteers with Careertrackers Alumni – an alumni group set up for Indigenous university students who complete internship in the private sector.

¹ From March 2017 <https://www.onewomanproject.org/single-post/2017/03/08/A-Conversation-with-Renee-Wootton-Qantas>

She also volunteers as a project manager for the Power of Engineering. The Power of Engineering is a non-profit organization that seeks to inspire the next generation of Engineers, particularly prospective female engineers.

And if that's not enough, she volunteers with the Mercy Centre – a non-profit shelter for street kids and mothers and children with HIV/AIDS.

It's right that we recognise Renee and the other participants in this wonderful project – and I invite her to come and speak to us.