

Vice Chancellor, I have the honour to present, for the award of the degree of Doctor of Science in Engineering, honoris causa, David Edwin Potter.

What makes an expert - somebody who is smart, rich and who operates at the extreme outer edge of what is statistically plausible?

According to Dr K Anders Ericsson, a Professor of Psychology at Florida State University, it's 10 000 hours. 10 000 hours of what is called "deliberate practice" – focussed struggle and effort in trying to do things that you cannot do. It's also a bit of luck, seizing the moment and being in the right place at the right time.

According to this view, Mozart had put in his 10 000 hours by the time he was sixteen, Bobby Fischer reached grandmasterhood in only 9 000 and the Beatles earned their 10 000 hours by playing seven nights a week, eight hours a set, night after night in a Hamburg strip club.

South African born David Potter's ten thousand hours began after he had spent a year at UCT and earned a Beit Scholarship to study natural sciences at Cambridge. His doctorate in computational physics from Imperial College, London resulted in a textbook that was still on the Oxford reading list nearly 30 years later. His academic career, during which he taught at Imperial College and the University of California, was his version of the Beatles' Hamburg strip club – 10 000 hours of honing his craft.

His discipline is physics – the king of the sciences – and his particular speciality was computational physics, using computers to build models of complex systems, like dense plasmas and galaxies. This involved writing software, using hardware and developing a deep understanding of thermodynamics. At this stage, hardware was mainframe computers - microchips were seen as toys. But David Potter, who, from theoretical physics, had learned how to think; from thermodynamics, had a grounding in the laws of what was possible, and from solid state physics, was in precisely the right field, knew that something big was about to happen.

He began the multi million pound business that was to become PSION in a back room of a tiny estate agent's office on the Edgware Road in London in 1980. Even the typewriter was rented. But David Potter knew that he already had a front row seat at the show that was to become the digital revolution.

The PSION Organiser was a handheld computer in the days before personal computers, before the internet and before smartphones. It had a solid state hard disc at a time when floppies were state of the art. It was the iPad of its day - forward thinking, innovative and so radical that just owning one was a real statement.

From there, Potter focussed on Symbian, which was, until very recently, the operating system that powered the majority of smartphones on the market. In 2009, he established the Symbian foundation to make the Symbian platform open source and royalty free.

It's not surprising that education is close to David Potter's heart. He's chosen to pursue this interest through funding educational projects in Africa and Asia; serving on the UK Dearing Committee on Higher Education and as a member of the Council for Science and Technology reporting to the UK Cabinet.

Potter and his wife, Elaine, a PhD in her own right, started the David and Elaine Potter Foundation, which amongst other things, funds Fellowships for Postgraduate Study at UCT. These fellowships are specifically to support "men and women... who will help to lead South Africa into an ever more successful future".

Ten thousand hours means that greatness requires enormous time. Ten thousand hours is neither for the impatient nor for the faint of heart. Ten thousand hours speaks to the awesome power of passion combined with deliberate practice.

Vice Chancellor, I have the honour to invite you to admit to the degree of Doctor of Science in Engineering, honoris causa, David Edwin Potter.