

CHANGING THE WORLD THROUGH EDUCATION

# Target is more diversity at SU

Wim de Villiers

THE public sharing of knowledge remains one of the greatest features of universities. It boosts the impact of higher-education institutions on society.

Universities are among the oldest institutions in the world. Bologna has been around since 1088, and Oxford is well over 900 years old. That universities have survived this long shows they have made themselves useful to society.

But as modern-day sage Bob Dylan said: "The Times They Are a-Changin'". These days, Google and YouTube are universities' biggest competitors – and they are not even out of their teens yet!

Stellenbosch is nearing its centenary as a public university in 2018, but if we want to see out the 21st century, we must be relevant to the needs of society. The philosopher Alfred North Whitehead said the "task of a university is the creation of the future". How do we do that? Through our core functions – research and innovation, learning and teaching, as well as community engagement.

And in all aspects we have to maximise our social impact.

I want to look at these functions one by one, beginning with research and innovation. Our academics – and students, particularly at postgraduate level – engage in scientific enquiry to generate new knowledge. That is the starting point for universities.

There are two sets of requirements for research. It must be reliable, accurate and valid, which speaks to the methods we use, and to the need for science to be public so that it can be verified or disproved. And research must be relevant and meaningful. This refers to its applicability and usefulness.

Let me provide examples. In 1903, Marie Curie was awarded a Nobel Prize in Physics together with her husband, Pierre, and fellow researcher, Henri Becquerel.

But Marie had written up the bulk of the research in her doctoral thesis earlier that same year – the same output that earned her a second Nobel Prize – this time for Chemistry, in 1911 – for discovering two new elements, radium and polonium.

Now, there is another award which sounds quite similar – the Ig Nobel Prize, designed to make people laugh but also think. Take the Ig Nobel Probability Prize that went to Tolcamp, Haskell, Langford, Roberts and Morgan in 2013 for making two related discoveries. First, "that the longer a cow has



'SOCIAL IMPACT': Stellenbosch University Rector and Vice-Chancellor Professor Wim de Villiers. Picture: ERHARDT THIEL

been lying down, the more likely that cow will soon stand up". And second, "that once a cow stands up, you cannot easily predict how soon that cow will lie down again".

Their research sounds silly, but it was published in 2010 by Elsevier in Applied Animal Behaviour Science, a reputable international journal reporting on the study animals managed by humans. We might consider it trivial, but dairy and cattle farmers would probably find it useful – not to mention animal rights campaigners who might want to take them on!

Now, whether you are a would-be farmer or an evolving environmental activist, you are likely to benefit from a solid education. Teaching is the second core function of universities, and it is inextricably linked to learning.

Universities educate professionals who will be able to make a positive contribution to society in various fields – from doctors, teachers and engineers, to entrepreneurs, artists and scientists. In this way, higher education is a public good.

But it is also a private good. According to the World Bank, the average increase in earnings for every additional year of tertiary education in sub-Saharan Africa is 21 percent. In our country, university enrolment rose from around 490 000 students in 1994 to 937 000 in 2011.

The country's goal is to maintain this momentum. The National Development Plan foresees an increase in participation rates from the 2011 figure of 17.3 percent to 25 percent by 2030.

And at the same time, access



TRANSFORMING COMMUNITIES: Students in the library at Stellenbosch University.

Picture: ALEXIA WEBSTER

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should be broadened for individuals from previously excluded and disadvantaged groups. It makes sense, because if knowledge is our most precious resource – as it is in the current Information Age – it is vital that we develop all our human resources to the full.

This brings me to universities' third core function – community engagement. Universities cannot afford to be ivory towers. We are situated in communities facing serious challenges, such as unemployment, poverty, disease, homelessness and hunger.

Last month, the Cape High Court ruled in favour of 15 farmworkers, cleaners and security guards who had their salaries attached by micro-lenders. The court slammed the "predatory lending practices of credit providers" who either failed to

carry out affordability assessments or blatantly forged debtors' signatures.

The applicants were represented by the Stellenbosch University Legal Aid Clinic because the legal system can only be effective if it is accessible and credible in the eyes of ordinary citizens. This is an example of how universities can help create a better future through social impact.

Stellenbosch is undoubtedly a research-intensive university.

The Department of Higher Education and Training ranks South African universities in terms of their weighted per capita research output and knowledge generation. Since 2008, Stellenbosch has been No 1 in the country.

This achievement would not have been possible without a solid knowledge base. As opposed to the

national average of 41 percent of fulltime academic staff with PhDs, Stellenbosch has 62 percent. We have 369 academics rated by the National Research Foundation – 15 with an A, the top achievement.

According to the White Paper for Post-School Education and Training, a "focused renewal and expansion of the academic profession is vital for the long-term sustainability of high-quality public higher education in South Africa".

However, there is a serious countrywide shortage of human resources from the designated groups. At Stellenbosch, we have made good progress towards greater diversity in our staff corps, but as with other universities, senior academic appointments remain a challenge.

In 2014, permanent black, coloured and Indian employees at SU made up 43.2 percent of the university's staff corps compared to 37.6 percent in 2008.

So, the trend is upwards, but we will have to accelerate its pace to reach its goal of 53 percent by 2020.

We have therefore decided to invest close to R70 million to diversify our staff corps over the next

three years. This amount has been allocated from our strategic fund and will be in addition to the normal staff budget.

Focusing on the designated groups, we want to recruit senior academics and afford current SU staff members development opportunities to move through the ranks more quickly.

Madiba said: "Education is the most powerful weapon you can use to change the world."

That remains our mission as a university. We transform our students – and staff – through learning and teaching. We transform society through research and innovation. And we transform communities by engaging in a co-operative search for solutions to societal challenges.

But it is a two-way street.

As we transform others, so we are transformed as individuals and institutions.

● Professor De Villiers is Rector and Vice-Chancellor of Stellenbosch University (SU). This article is based on his talk at the annual academic day of SU's Faculty of Medicine and Health Sciences on August 13