

**KEYNOTE ADDRESS BY THE DEPUTY MINISTER OF
HIGHER EDUCATION AND TRAINING, MR BUTI
MANAMELA, AT THE LAUNCH OF THE
MULTICHOICE/UNIVERSITY OF PRETORIA
MACHINE LEARNING CHAIR**

UNIVERSITY OF PRETORIA, MAIN CAMPUS

28 MAY 2018

Programme Director – Ms Claire Mawisa

Vice Chancellor - University of Pretoria - Prof Cheryl De
la Rey

Chief Executive Officer of MultiChoice – Mr Calvo Mawela

Dean of the Faculty of Science, Technology and
Engineering - Professor Sunil Maharaj

Researchers and academics

Representatives of Business and Industry

Members of the media

Ladies and Gentlemen

It gives me great pleasure to address you at this launch of the Multichoice/University of Pretoria's Machine Learning Chair. Thank you for this invitation.

I envisage that this partnership between the University of Pretoria and Multichoice will develop and create an interest in artificial intelligent (AI) and machine learning skills that will make a significant contribution to research in this area for our country.

There is no doubt that the Fourth Industrial Revolution is triggering the transformation of our society. Emphasis is nowadays placed on a new technological era where information and communication technology is core to development, and moving forward requires necessary developed skills. Positioning South Africa within this context requires setting a future vision, a longer-term view

towards generating the high-level research and technology development that will support the creation of new knowledge and technology solutions.

In doing this we will be supporting innovation, sustainability and global competitiveness. Technology for is key in this process.

Our country is experiencing an increased demand for skilled people in specific scarce skills areas to sustain and support the economic and social needs. Communities are faced with extreme levels of poverty; underdevelopment; unemployment; poor health; poor schooling system in certain areas and the lack of both lower-level and high-level skills.

Within this context, it is undeniable that education plays a key role in the social, political and economic development. We need a post-school system that can adequately respond to the needs of millions of people including adults and youth. In addition, it must provide access to education of a high quality. We need to provide equal opportunities for education and training, expanding opportunities for people in disadvantaged areas, expanding opportunities for youth; increasing access, and improving quality and diversity.

Accenture Consulting in their report entitled “*Creating South Africa’s Future Workforce – Digital puts one in three jobs at risk*” state that humans and machines working together is required to boost economic growth in order to develop different customer experiences and creating new products and services for new markets. By

doubling the pace at which the workforce acquires the relevant skills for human-machine collaboration it can reduce the number of jobs at risk.

Innovation and technological development are essential in reducing the challenges of unemployment, inequality and poverty experienced in our country. The creation of an innovation architecture will lay the foundation for increased productivity in our industrial sector and contribute to social upliftment. Technology has influenced the way we function, the way we teach and the way we learn. It has also given rise to new opportunities, research and areas for development.

As a country we need to embrace the opportunities the Fourth Industrial Revolution brings and develop the necessary competencies by inclusion into our education

and training sector. To remain relevant, education and training institutions therefore needs to ensure the development of knowledgeable and competent students, based on best practice, staying ahead of technology developments, and the delivery of subject matter through utilising technology.

We need to focus on new ways of teaching and learning to ensure our graduates are relevant. Technology needs to be brought into our teaching environments to enable and aid staff in the creation of a better environment where learning can be aided. Learning should take place in an environment that is developmental and innovative in its approach. We need to be flexible, encourage new ideas, focus research areas and innovate to remain abreast in this constantly changing environment.

Research and innovation by universities, science councils, government departments, non-governmental organizations and the private sector has a key role to play in improving South Africa's global competitiveness and economic development.

To achieve this it is pivotal that there exists a solid coordination and collaboration between the different role-payers and support for partnerships between universities and other role-players.

Universities should therefore create an embedded culture of research and development by attracting researchers; forming partnerships with industry; and becoming equipped with the latest technologies. In turn, they should focus on new and emerging research areas to compete

locally and internationally with innovative products, services and technologies.

Collaboration and partnerships between the business, academic and public sectors are key.

The Department is focused on increasing access to high level occupationally-directed programmes in needed areas and Research, development and innovation in human capital for a growing knowledge economy. These areas of study include increasing the number of graduates in the scarce skill area of engineering as well as research.

In line with this, I am extremely pleased by this partnership and sponsorship of a Machine Learning Chair at the University of Pretoria as it focusses on the scarce

skill area in engineering and supports research in this area. This Chair will enable us to address this scarce skill area through the creation of a pipeline of engineers focused on building and contributing to the digital future and global competitiveness of our country.

We need to nurture our students in exploring new areas of research and the Chair will provide guidance on the projects that will be selected for sponsorships.

I am confident that the research that will be developed in the areas of Engineering, Big Data Science and Communication Science will enable our competitiveness globally. In addition the opportunities that will be created through bursaries for students in the area of science, technology and engineering to study in the field of Machine Learning will enrich the lives of many students.

In conclusion, the Department is fully committed towards creating an environment to support the education and training of a skilled and capable workforce to support economic growth and job creation. Our education and training system needs to be relevant, effective and efficient in serving the career aspirations of our young people, and producing the skills and knowledge to support its growth.

We need to embrace the opportunities the Fourth Industrial Revolution brings as a new technological era and produce graduates that are relevant within the information and communication technology developments.

I therefore thank Multichoice for their sponsorship of this Machine Learning Chair and for partnering with the University of Pretoria to nurture scarce skills engineering talent in South Africa. I also hope that students in the fields of Engineering and Computer Science will seize the opportunity of engaging in research in these fields and help our country to grow a strong foundation in this area of research.

I envisage that this partnership will result in a positive contribution to nurturing a pipeline of talent and for skills development in our country.

I wish you well in undertaking this enormous task and encourage all of you to get involved in this sector.

I thank you.

