## Remove borders to up free knowledge

By **Tawana Kupe** - 15 Jan 2020



Borders at universities are stopping solutions to global crises.

People the world over are increasingly recognising that the only way to come up with innovative solutions to the complex challenges we face is to transcend boundaries — knowledge and physical boundaries.

The problems we face include the climate emergency, unprecedented threats to environmental sustainability, escalating poverty and inequality, unemployment, hunger and food insecurity, disease, water and energy shortages, and involuntary migration.

The innovative solutions we require are driven to a significant degree by technological change, popularly referred to as the fourth industrial revolution — a world of smart systems, artificial intelligence, virtual and augmented reality, the internet of things, robots and big data — a world that transcends boundaries.

For universities and knowledge creation institutions it offers untold potential to increase local and global collaboration in a number of ways, including shared lectures, online courses and degree programmes, distance learning and combined research that produces solutions to our planet's problems.

We can achieve scale through collaborations, partnerships and networks in and beyond national borders and across continents. Collaborations and partnerships are not threatening, they are enhancing and they are especially good for the Global South.

If we embrace our interconnectedness and commonality we free the flow of academics between the Global South and Global North. Currently, the flow is mostly one way, resulting in the loss to the Global South of many of its best and brightest, with no prospect of return.

Collaborations and partnerships should also not be confined to higher education. We need to tackle problems in collaboration with citizens, industries and governments. An example of such a collaboration is the Australian Africa Universities Network, of which the University of Pretoria (UP) is a member and I serve as the co-president.

The network includes 10 Australian and 12 African universities, and we collaborate on a range of issues, from education and public health to mining, minerals and food security.

Another of our collaborations is with Michigan State University (MSU), a leader in creating partnerships, collaborations and networks across the oceans and continents. MSU, which has had a presence in Africa for 65 years, is part of the African Alliance Partnership, which includes 10 African universities, including UP.

The focus is on sustainable agriculture and food security, one of the major African and global challenges of our time.

UP aspires to become an African global university, locally responsive, but continental in scope and globally involved in making a significant contribution to transforming the world. We still have a way to go to achieve this, because the global community of universities faces constraints in the form of boundaries and borders within and beyond higher education.

Within universities, the boundaries and borders have been consolidated through the organisation of knowledge into distinct disciplines. Disciplines have their value as foundational spaces in higher education. The problem is that disciplines have become hard-bound spaces instead of fluid avenues that enable critical thinking, inquiry and the development of problem-solving skills.

One of the best ways to free knowledge is to break down the disciplinary borders through transdisciplinary approaches to knowledge creation.

Transdisciplinarity, I am pleased to say, is rapidly gaining momentum as an emerging theory and practice. As part of this, the arts are claiming their rightful place among the most sought after fourth industrial revolution subjects — science, technology, engineering, arts and mathematics.

At UP, for example, our new master's degree in tangible heritage conservation intersects the sciences (mainly chemistry) and the arts to produce a new generation of conservators and cultural custodians for South Africa and Africa. The skills required include scientific research of areas of natural significance that require protection, the spectrographic and microscopic examination of artworks, the artistry required in restoration and the high level of creativity that is essential to both the scientific process and the artistic method.

An obvious reason for adopting transdisciplinary approaches is that the local and global challenges do not come neatly packaged in disciplines. They are messy, complex and intersectional, requiring innovative transdisciplinary approaches. They need the combined scale and critical mass of the global academy.

Another set of boundaries and borders limits the physical movement of students and academics in the world. There are firm financial boundaries and border and immigration controls that many nations impose on each other. Border controls, which enable orderly mobility, are legitimate; every nation needs them.

The problem is they often hinder the intellectual interactions and intersections necessary to maximise the knowledge cross-pollination that could be used to change the world. Cumbersome visa regimes should give way to a global academic and student passport or a global visa acceptable to all.

Borders and boundaries go against the notion that knowledge and ideas know no borders. Knowledge and university communities should be enabled to flow freely across borders and boundaries, unhindered and unfettered.

We must free knowledge from human-made shackles and gain the freedom to leverage knowledge for social change and transformation. We must build on our common strengths, increase mobility and nurture a new generation of knowledge creators who transcend borders and boundaries to co-create effective, transformative knowledge for a better, sustainable world.

Professor Tawana Kupe is the vice-chancellor and principal of the University of Pretoria