



# 12th Annual Strategic Leaders Global Summit on Graduate Education



## *Supporting Diversity in Graduate Education*

November 11-13, 2018  
University of Johannesburg  
South Africa



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# 2018 Strategic Leaders Global Summit on Graduate Education: Timed Agenda

## Sunday, 11 November 2018

Time	Details
17:45	Assemble in Lobby of Hyatt Regency, Johannesburg
18:30–20:30	Opening Reception at the View Hotel, University of Johannesburg; Hosted by Professor Saurabh Sinha, DVC Research & Internationalisation, UJ

## Monday, 12 November 2018

Time	Details
	<b>Breakfast on Your Own</b> <b>Note:</b> Hyatt Regency group rate includes breakfast
8:00	Assemble in Lobby of Hyatt Regency, Johannesburg
8:45	Participant Registration - Madibeng Building, Auckland Park Campus, University of Johannesburg
9:00–9:15	<b>Welcome and Introduction</b> <b>Suzanne T. Ortega</b> , President, Council of Graduate Schools
9:15–10:45	<b>Panel 1: Global, Regional, and/or National Understandings of Diversity</b> Moderator: <b>Adham Ramadan</b> , Dean of Graduate Studies, The American University in Cairo (Egypt) <b>Jani Brouwer</b> , Director, Doctoral College UC, Pontifical Catholic University of Chile <b>Karen Butler-Purry</b> , Associate Provost for Graduate and Professional Studies, Texas A&M University (U.S.) <b>Luke Georghiou</b> , Deputy President & Deputy Vice-Chancellor, University of Manchester (U.K.) <b>Shireen Motala</b> , Senior Director, Postgraduate School, University of Johannesburg (South Africa) <b>Adham Ramadan</b> , Dean of Graduate Studies, The American University in Cairo (Egypt) <b>Paula Wood-Adams</b> , Dean, Graduate Studies, Concordia University (Canada)

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**Fiona Zammit**, Executive Officer, Australian Council of Graduate Research

**10:45–11:00 Coffee Break - Madibeng Lounge**

**11:00–12:15 Panel 2: Creating a Campus Culture that Values Diversity**

Moderator: **Shireen Motala**, Senior Director, Postgraduate School, University of Johannesburg (South Africa)

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**Clinton Aigbavboa**, Vice Dean, Postgraduate Studies, Research and Innovation, University of Johannesburg (South Africa)

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**Ahmed C. Bawa**, CEO, Universities South Africa

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**Hans-Joachim Bungartz**, Graduate Dean, Technical University of Munich (Germany)

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**Liviu Matei**, Provost, Central European University (Hungary)

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**Imelda Whelehan**, Dean, Higher Degree Research, The Australian National University

**12:30–13:30 Lunch - Madibeng Lounge**

**13:30–14:45 Panel 3: Recruiting a Diverse Student Body**

Moderator: **Luke Georghiou**, Deputy President & Deputy Vice-Chancellor, University of Manchester (U.K.)

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**Riadh Abdelfattah**, Vice-President, University of Carthage (Tunisia)

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**Mee-Len Chye**, Dean, Graduate School, University of Hong Kong

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**Alexander Hasgall**, Head, Council for Doctoral Education, European University Association (E.U.)

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**Helen Klaebe**, Pro Vice-Chancellor, Graduate Research and Development, Queensland University of Technology (Australia)

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**David G. Payne**, Vice President and Chief Operating Officer, Global Education, Educational Testing Service (U.S.)

**14:45–15:00 Coffee Break - Madibeng Lounge**

**15:00–16:30 Panel 4: Creating Inclusive Programs**

Moderator: **Jani Brouwer**, Director, Doctoral College UC, Pontifical Catholic University of Chile

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**Paolo Biscari**, Dean, Doctoral School, Politecnico di Milano (Italy)

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**Freddy Boey**, Senior Vice President, Graduate Education & Research Translation, National University of Singapore

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**Andrew Kaniki**, Executive Director, Knowledge Advancement and Support, National Research Foundation (South Africa)

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**Klaus Mühlhahn**, Vice President, Freie Universität Berlin (Germany)

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**Aidate Mussagy**, Assistant Professor & Editor in Chief of the Scientific Journal, Eduardo Mondlane University (Mozambique)

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**Christopher Sindt**, Provost and Dean of the Graduate School, Lewis University (U.S.)

**17:00–20:30 Dinner at the School of Hospitality and Tourism, Bunting Road Campus, University of Johannesburg; Guest Speaker: Professor Adekeye Adebajo, Director at the Institute of Pan African Thought & Conversation (IPATC), UJ**

# Tuesday, 13 November 2018

Time	Details
	<b>Breakfast on Your Own</b>
<b>8:00</b>	<b>Assemble in Lobby of Hyatt Regency, Johannesburg</b>
<b>9:00–10:15</b>	<b>Panel 5: Supporting Retention and Completion of Underrepresented Students</b>
	Moderator: <b>Karen Butler-Purry</b> , Associate Provost for Graduate and Professional Studies, Texas A&M University (U.S.)
	<b>Luc De Nil</b> , acting Vice-Provost, Graduate Research and Education and acting Dean, School of Graduate Studies, University of Toronto (Canada)
	<b>Nelson Ijumba</b> , Deputy Vice Chancellor, Academic Affairs & Research, University of Rwanda
	<b>Paula McClain</b> , Dean of The Graduate School and Vice Provost for Graduate Education, Duke University (U.S.)
	<b>Sally Pratt</b> , Vice Provost, Graduate Programs, University of Southern California (U.S.)
<b>10:15–10:45</b>	<b>Coffee Break - Madibeng Lounge</b>
<b>10:45–12:15</b>	<b>Panel 6: Addressing Specific Demographics</b>
	Moderator: <b>Paula Wood-Adams</b> , Dean, Graduate Studies, Concordia University (Canada)
	<b>Philippe-Edwin Bélanger</b> , Director, Department of Graduate and Postdoctoral Studies, Institut National de la Recherche Scientifique, University of Québec (Canada)
	<b>Carlos Gilberto Carlotti</b> , Provost, Graduate Studies, University of São Paulo (Brazil)
	<b>Linda Mtwisha</b> , Senior Director, Strategic Initiatives and Administration, University of Johannesburg (South Africa)
	<b>Martin Oosthuizen</b> , Executive Director, Southern African Regional Universities Association
	<b>Aoying Zhou</b> , Vice President, East China Normal University (PRC)
<b>12:30–13:30</b>	<b>Lunch - Madibeng Lounge</b>
<b>14:00–15:30</b>	<b>Practical Actions</b>
	Moderators: <b>Shireen Motala</b> , Senior Director, Postgraduate School, University of Johannesburg & <b>Suzanne T. Ortega</b> , President, Council of Graduate Schools
<b>15:30</b>	<b>Global Summit Ends</b>





# Welcome and Introduction

## Welcome and Introduction

**Suzanne T. Ortega**  
**President**  
**Council of Graduate Schools**

It is an honor for the Council of Graduate Schools to co-host the Twelfth Annual Strategic Leaders Global Summit on Graduate Education in partnership with the University of Johannesburg (UJ). Before I begin my formal remarks, I would like to express my appreciation to Shireen Motala, senior director of the postgraduate school at UJ, for her commitment and collaboration throughout the process of planning this event. Our agenda has benefited from her perspective both as a leader in graduate education and as an expert on international collaborations in higher education. It has been a pleasure for CGS to develop this year's program in conversation with her and the talented UJ staff, in particular, Ismail Badrudin of the Division for Internationalisation.

I would also like to give thanks to our co-sponsor for this year's event, Educational Testing Service (ETS), for continually demonstrating a deep commitment to graduate education. A special thanks is due to David Payne for continuing to prioritize support for this important event. ETS is in an excellent position to contribute to our conversation about diversity in graduate education given its position as a global research organization and commitment to advancing quality and equity for all students.

### **Twelve Years of the Strategic Leaders Global Summit**

Since the Summit began in 2007, the subjects of diversity and inclusion have been incorporated into the overarching topic of each meeting, but this marks the first year we will focus exclusively on promoting the success of traditionally excluded and underrepresented populations in graduate education. CGS has prioritized diversity and inclusion in its own work, including several grant-funded projects, an award, and the creation of the Diversity and Inclusiveness Advisory Committee in the early 1980s. I realize that some of these initiatives may be new to you and thought this would be a good opportunity to outline them.

### **Admissions**

#### [Innovation in Graduate Admissions through Holistic Review](#)

A growing number of universities are adopting holistic review practices in their admissions processes. Holistic review, also known as whole-file or comprehensive review, considers a broad range of characteristics, including noncognitive and personal attributes, when reviewing applications. Holistic review encourages the use of a comprehensive suite of quantitative and qualitative materials to do the best possible job of admitting cohorts of students that provide the diversity of experience and perspective necessary to support the highest levels of science and scholarship. Higher education leaders consider holistic review a promising practice for achieving diverse cohorts of students with varied experience, backgrounds, and expertise. CGS conducted a one-year pilot study with support from Hobson's to better understand existing holistic graduate application processes. The subsequent project report outlines our recommendations and key findings, including advising graduate schools to articulate their diversity objectives and tie them to the missions of their institutions.

### **ETS/CGS Award**

#### [ETS/CGS Award for Innovation in Promoting Success in Graduate Education: From Admission to Completion](#)

This program recognizes promising efforts in initiating or scaling up innovations in graduate

education that occur from admission through successful completion of a degree program. It is designed to link innovative admissions practices with other institutional practices including, but not limited to, mentoring, support programs, intellectual enrichment, and social support, that will improve student success once students are enrolled in their graduate programs. This award program is especially interested in encouraging innovations that promise to improve the success of a diverse and inclusive student population.

## **Retention & Completion**

### *Doctoral Initiative on Minority Attrition and Completion (DIMAC)*

CGS examined patterns of completion and attrition among URMs in STEM doctoral programs across twenty-one institutions in the United States, including those institutions affiliated with NSF's Alliances for Graduate Education and the Professoriate (AGEP) program. This project assembled the largest dataset of its kind to estimate the percentage of URM doctoral students in STEM fields who completed or withdrew from their program and the time it took them to complete the doctoral degree. DIMAC also uses survey and focus-group data to shed light on the array of programs and services universities and programs provide to support the success of a diverse graduate student population.

### *Alliance for Graduate Education and the Professoriate (AGEP) National Forum*

As part of the original DIMAC project, CGS convened the AGEP National Forum in February of 2017 to explore promising practices with the potential to significantly improve the diversity of graduate students and the professoriate in STEM fields.

## **Career Pathways**

### *Understanding PhD Career Pathways for Program Improvement*

Over the course of this project, universities will collect data from current PhD students and alumni using surveys that were developed by CGS in consultation with senior university leaders, funding agencies, disciplinary societies, researchers, and PhD students and alumni. By gathering career pathways information at the program level, our universities are working to ensure that our students are well-prepared for the multiple career pathways they may pursue over their lifetimes. Our hope is that by helping students understand what skills and attributes they are developing as PhDs and empowering them to make informed decisions about their career goals will improve completion rates as students recognize the applicability of those skills and attributes across a variety of career pathways. In addition to our original grant funding, CGS received an additional supplement to include four federally-recognized Minority-Serving Institutions in the coalition. With that additional funding, I am proud to note that, although 41 universities participated in the first wave of data collection, a total of 64 have now joined the project, including 14 minority-serving, 55 public, 11 private, and 28 AAU institutions. (Note: Some universities fall into multiple categories.)

## **Overview of Panels**

During the 2018 Global Summit, we will attempt to address the varied ways the international graduate education community currently works to promote diversity of peoples and perspectives, including assessment in the admissions process, relevant curriculum, peer and faculty-mentoring, robust summer orientation programs, student associations, language support, funding, etc. This year's panels have been organized around six topics for discussion: global/regional/national understandings of diversity, campus culture, recruitment, inclusivity, retention and completion, and ways to address specific demographic challenges, including indigenous peoples, refugees, and migrant populations. This should in no way be considered an exhaustive list of themes relevant to diversity in graduate education, but these topics will provide a framework for our conversations. I think we can all agree that one of our shared goals is to foster learning environments that

provide access and equity for all current and future graduate students. Achieving this goal can be accomplished in a number of ways, including efforts to change social attitudes through education, focused outreach and tailored support via workshops, recruitment fairs, specialized program offerings, and macro funding frameworks that support diversity and inclusion.

### **Final Session and Next Steps**

As in past years, we have formulated a number of challenging questions that lack definitive answers. We do know that changes are occurring on our campuses. During the final session of the Summit, we will work together to identify action steps to assist our efforts to advance the work of this summit when we return home.

I hope they will reflect the priorities of our varied national and institutional contexts, as well as some common themes of the meeting. CGS will publish the proceedings of this Summit, including your papers and a final document of practical actions, on the CGS website. We will also share it with our approximately 500-member universities in a variety of ways.

I look forward to sharing ideas with this diverse group of leaders in graduate education as we consider Supporting Diversity in Graduate Education, and how individually and collectively we can improve upon these efforts for the benefit of students, universities, and our broader communities.

# **1: Global, Regional, and/or National Understandings of Diversity**

## Strengthening Diversity and Inclusion at Chilean Universities

*Jani Brouwer*

**Director, Doctoral College**

**Pontificia Universidad Catolica de Chile (Chile)**

### **Introduction**

Chile, in spite of its sustained economic growth and healthy macroeconomics, exhibits very large income inequalities and this is reflected in the kind of education that can be accessed.

The Chilean education system faces the challenge of unequal access to quality education, which permeates the entire educational system from primary through tertiary education. At the primary level, since admission decisions were made at the school level, students of lower socioeconomic status were occasionally denied admission to better-quality schools. In addition, high copayments and/or private school fees frequently meant these students were unable to afford the better-quality schools. Similarly, poor students were often unable to afford tertiary education.

Although the education system in Chile still has many barriers to overcome for a true inclusive system considering its serious problems of inequality and socio-economic segregation there has been progress in the creation of policies and implementation of reforms and regulations. These allow institutions to work with diversity in a way that promotes integration in the educational system, education as a tool for social mobility and education as a right guaranteed by the Chilean State for equal opportunity of access, retention and graduation for all students.

The increasing recognition of equity challenges has led Chile to introduce a range of initiatives to channel extra resources to vulnerable students- e.g. socio-economically disadvantaged, indigenous students, students in rural and remote areas, and students with special needs.

Access, diversity and inclusion in higher education present different problems to highly selective universities of the Rector's Council (CRUCH). This reflects the strong inequalities of the segregated school system, because admission is heavily determined by the National University Selection Test (PSU) and tend to exclude low-income students. The number of students in higher education systems has nearly doubled in the past decade across Latin America and the Caribbean, but only half of them have graduated on time. Overall, Chile is making progress towards becoming a more inclusive and diverse society and concrete changes are taking place.

Since 2010, Chilean universities have been working to address commitment to equity and diversity, establishing specific policies of Equity and Inclusion in their Strategic Development Plans.

In October 2011, the Equity and Inclusion Committee of the University of Chile proposed the creation of the "Priority Access System for Educational Equity (PASEE) and the implementation was improved by the university government for the 2012 admission at the undergraduate level. This system aims at increasing the participation of young people graduating from public schools in underprivileged contexts. Implementation of this program is being accompanied by diverse support programs, which aim to facilitate integration and successful academic performance.

At present these initiatives are being carried out through the collaboration of the Departments of Undergraduate Studies and Student Welfare, with coordinated efforts at the central and faculty level through the University's newly formed Equity and Inclusion Office.

The Pontificia Universidad Católica de Chile (UC), in its quest to fulfill its mission and from the perspective of creating a broad and diverse educational project, has created several initiatives to promote equity of access and graduation of all talented students who choose to study here. The UC Inclusion Directorate offers equity-focused admission paths, funding and financing options, academic equalization programs, and student support.

The Directorate's Talent and Inclusion Program's equity-focused admission options for undergraduate degrees are aimed at secondary school students in the top 10% of their class at municipal or subsidized educational institutions. The Program's objective is to promote the admission of talented students from diverse educational contexts. Initiatives and opportunities within the Talent and Inclusion Program include the "Inclusion Program for Students with Special Needs" (PIANE), the "Padre Luis de Valdivia Native Peoples Scholarship," and the "Accompaniment and Effective Access to Higher Education Program" (PACE).

The focus so far of these programs has been the UC undergraduate student body. But, the Directorate is developing a more systematic approach to promote equity and inclusion at the graduate and continuing education levels. At present, several UC graduate students already participate in the PIANE program.

### **Undergraduate Students**

The UC's Institutional Analysis and Planning Directorate (Dirección de Análisis Institucional y Planificación, or DAIP) carries out an annual survey of first-year undergraduate students, the results of which contribute to a profile of the diversity of the university community. In the 2018 survey, 2.8% of respondents reported having a disability; the majority (72.1%) reported having a visual disability, followed by a motor disability (16.4%). Slightly more than 9% of respondents reported an attention deficit disorder diagnosis and 0.9% reported having an autism spectrum disorder.

4.9% of first-year students reported being a member of an indigenous community, a figure slightly higher than the percentage reported in 2017. The majority of students (87.4%) declared they belong to the Mapuche community and 8.4% reported belonging to the Aymara community. A higher proportion of first-year students who attended and graduated from municipal and subsidized secondary schools than those from private secondary schools reported being a member of an indigenous community. Almost 31% of survey respondents reported being the first member of their family (first generation) to attend an institution of higher education.

### **PhD Students**

Slightly more than 24% of currently-enrolled PhD students at the UC are international students. The majority (68.9%) are from other South American countries; Colombia (42.5%), Venezuela (14%), and Ecuador (12.9%) are the top three home countries. The majority of Chilean PhD students (88.9%) are from the Metropolitan Region, which includes Santiago, followed by the Valparaíso Region (2.8%) and the Biobío Region (1.8%).

Although significant progress has been made in the country, there is still a long road ahead in several aspects.

Many obstacles lie ahead and if the country is to fully embrace diversity and inclusion, it must understand and adopt best practices from other countries.

## Diversity in U.S. Institutions

**Karen Butler-Purry**

**Associate Provost for Graduate and Professional Studies  
Texas A&M University (U.S.)**

Diversity in the United States traces back to the country's founding, when early British colonists immigrated to North America. Except for a small percentage of individuals of Native American descent, no one person can rightfully claim they come "from" America. Since 1965, the nation has experienced radical changes in its ethnic composition. For a multicultural nation, such as the U.S., to experience freedom, justice and peace, its people must unite around a set of democratic values such as diversity. Hence, for some in the U.S., diversity is a social justice effort to achieve equity and inclusion where every person has an opportunity to gain a seat at the table. For others, diversity relates to addressing past wrongs committed during the building of America. The groups included in diversity goals have expanded beyond ethnic identity, and now also include education level (such as first generation college or graduate students), socioeconomic income level (Pell grant eligible), military veteran status, and variations in neurological function such as those on the autism spectrum. In contrast, for others diversity refers to the pragmatic efficiencies that a diverse representation of individuals with varying identities and cognitive capability bring to optimizing the efficiency and performance of a group/team.<sup>1</sup> Such 'diversity bonuses' have been shown to include improved problem solving and critical thinking skills, increased innovation, more accurate predictions, better research results, and more.<sup>1</sup>

After decades of efforts, universities in the United States and in the state of Texas continue to strive for diversity in higher education. Fall 2016 data reported by CGS<sup>2</sup> from 625 institutions enrolling more than 1.8 million graduate students helps paint a picture of diversity for several groups in United States universities. The number of graduate students from historically underrepresented groups continues to increase year to year but these groups still experience marked underrepresentation, particularly in STEM (science, technology, engineering and mathematics) fields. For instance, the percentage total of U.S. graduate enrollment for Blacks/African Americans was 10%, compared to 13% of the overall U.S. population. Hispanic/Latino individuals was 8% of total U.S. graduate enrollment, compared to 18% of the overall U.S. population. American Indian/Alaska Native individuals was .4% of the total U.S. graduate enrollment, compared to 1.3% of the overall U.S. population. The CGS data further shows that the majority of graduate student enrollees were women, but women still experience significant underrepresentation in some STEM fields such as engineering (approximately 25%). International graduate students constituted 18.9% of total enrollment in Fall 2016. But for the first time in more than a decade, both international graduate applications and first-time enrollment at U.S. institutions declined.

In Texas, the current higher education strategic plan<sup>3</sup> aims to increase educational attainment for 25- to 34- year olds to ensure Texas' economic future and global competitiveness. African Americans and Hispanics have been historically underrepresented in the state's higher

1 Page, S. (2007). *The difference: how the power of diversity creates better groups, firms, schools, and societies*, Princeton University Press, 2007.

2 Okahana, H., & Zhou, E. (2017). *Graduate enrollment and degrees: 2006 to 2016*. Washington, DC: Council of Graduate Schools.

3 *Texas Higher Education Strategic Plan: 2015-2030*. <http://www.thecb.state.tx.us/reports/PDF/9306.PDF?CFID=57485581&CFTOKEN=60423954>



education institutions, and the increase in representation and achievement of both groups are vital to achieving the state's goal. In fall 2016,<sup>4</sup> total graduate enrollment in Texas public universities numbered approximately 115,000 with African American representation at 10%, Hispanic representation at 18%, and international student representation at 25%. Examining those group percentages within doctoral education, the African American (8%) and Hispanic (11%) representation figures look alarmingly low as a gauge for potential representation on future faculty in Texas. International student enrollment in doctoral programs is nearly 40% of total enrollment.

While several goals at the national, state, and university level exist to increase the representation of the aforementioned underrepresented groups, diversity absent of an inclusive climate could result in high attrition and low graduation rates for students. Research shows that students of less privileged and more marginal backgrounds face even greater challenges as they enter what they can perceive to be an unwelcoming or even hostile environment.<sup>5</sup> At the university level, fostering a sense of belonging among students can happen through focus on four goals: ensuring that students of underrepresented populations have the support they need to be academically successful; building relationships and developing multicultural skills with members from diverse backgrounds; enhancing students' ability to participate in a pluralistic, interdependent global community; and increasing the participation of students of color in campus life.<sup>6</sup>

As diversity and inclusion efforts are advanced, tension and counter-narratives can result. Jennifer Mercieca of the Texas A&M University College of Liberal Arts discusses the challenge of having a productive conversation about issues of race or diversity without an agreed-upon understanding of what the term 'diversity' actually means.<sup>7</sup> For example, if one side understands 'diversity' as America's strength and another side understands 'diversity' as a conspiracy to exterminate white people.

And yet, despite a potential lack of unification around a chosen set of democratic values, to become an outstanding university, an institution must prioritize recruiting and retaining diverse faculty, students and staff, as well as create an inclusive culture that allows and encourages these diverse individuals to excel. Diverse students educated in an inclusive institution will produce impactful scholarship and research, contributing valuable service and quality impact on the state, nation and world.

In summary, while the motivation for diversity in the U.S. varies, evidence shows that diverse student populations and inclusive environments lead to better education experiences and performance for all students. Universities worldwide should employ intentional efforts to increase diversity and to develop and support an inclusive culture that encourages collaboration and fosters innovation.

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4 *Texas Higher Education Accountability Report*. <http://www.txhigheredaccountability.org/acctpublic/>

5 Carter, D. F., Locks, A. M., Winkle-Wagner, R., & Pineda, D. (2006, April). "From when and where I enter": Theoretical and empirical considerations of minority students' transition to college. Paper presented at American Educational Research Association annual meeting.

6 Locks, A.M., Hurtado, S., Bowman, N.A., & Oseguera, L. (2008). "Extending notions of campus climate and diversity to students' transition to college". *Review of Higher Education*, 31, 257-285.

7 Mercieca, J. (2018). *America is in the middle of a battle over the meaning of words like 'Diversity'* <https://today.tamu.edu/2018/07/24/america-is-in-the-middle-of-a-battle-over-the-meaning-of-words-like-diversity/>

## Equality and Diversity in the United Kingdom in the Context of Research Assessment

*Luke Georghiou*

**Deputy President & Deputy Vice-Chancellor  
University of Manchester (U.K.)**

Equality and diversity (E&D) issues have a high profile in the United Kingdom's research system but this is set against a context of historic underperformance. According to the Vitae project which ran from 2013-15, Every Researcher Counts, only 20% of professors are female and 0.4% are black, while the proportion of female academics earning over £50,000 (normally seen as the demarcation point for higher academic and professorial salaries) is around half that for males. Black and minority ethnic academics are considerably less likely to earn over £50,000. The UK's legislation, The Equality Act of 2010, identifies nine 'protected characteristics' covered by the law: age, disability (including carers of disabled people), gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief (including lack of belief), sex, and sexual orientation.

The past year has seen substantial restructuring of the research support environment, with the seven Research Councils (the largest source of support for doctoral training) being merged into a single entity, UK Research and Innovation (UKRI) which also includes the research-finding element of the former Higher Education Council for England (since known as Research England), which provides block support for research, including an element for postgraduate research training.

With the influence it can now exert as an employer or funder of over 7000 people, UKRI is intending to try to shape the research system and improving equality and diversity as one of its core stated goals. It rightly sees this as integral to its ambitious goals for the quality and impact of the UK's position in research and innovation. This 'external' rationale is presented as the need to become more effective at drawing people from the widest possible pool and better facilitate career advancement to ensure that talented people progress and achieve more senior positions. A set of principles include commitments to embed equality, diversity and inclusion at all levels, and to an evidence-based approach. There is also a recognition that while compliance is important, outcomes will not change unless the culture of the research organisation is also addressed.

An important dimension in the promotion of diversity concerns the application of assessment and/or metrics to assess the quality of research. For the UK the most prominent exercise in assessment is the Research Excellence Framework (REF) which at seven-year intervals assesses the quality and impact of research and uses the resultant grades to differentially allocate block funding for research to each subject area in an HEI. The quality element in particular has raised E&D issues. This involves assessment by a subject peer-review panel of up to four publications by each researcher entered. Doctoral researchers are not eligible to be entered (there is a criterion of independence in research) although they may often be co-authors of assessed outputs. However, the work they carry out in their doctoral studies may well form the basis of the publications assessed once they enter academic employment. Considerable effort went into assessing the point at which an early career researcher could be adjudged to be independent (with substantial variation between subject areas and types of fellowship).

In recognition of this and of wider E&D issues, REF rules have been adapted and this aspect overseen by an E&D Panel. For early career researchers the mitigation offered was straightforward, with a reduction in the number of outputs submitted down to a minimum of one according to a scale based on the date of appointment to an independent research position during the period. Out of a total population of 188,550 assessed, 16,574 fell into this category.<sup>1</sup> Formulaic reductions were also available for parental leave, part-time working and secondments. Universities were subject to audit to sustain these claims. More complex circumstances such as illness, caring responsibilities or disability were also eligible for reduction in the number of outputs. These involved a difficult process for all concerned, with the submitting institution responsible for compiling evidence from employees who may not have been in a good position to provide evidence. Audit by panel members was undertaken on an anonymized basis. Overall, the approach appeared to be validated by the outcome, whereby research outputs by staff submitted with individual circumstances were judged by the REF panels to be of equally high quality to outputs by all staff.

Institutions were also required to carry out equality impact assessments (EIAs) to inform their selection procedures and to analyse the impact of their selection decisions against a background of a code of practice setting out fair and transparent procedures for selecting staff to be included in their REF submissions. The final report of the E&D Advisory Panel for the 2014 REF raised issues around variation in levels of gender equality in staff selection across the sector and called for less aggregated publication of these and other diversity data in future. As preparations proceed for the 2021 REF, an early concern has been the representativeness of the panels themselves with, for example, mandatory, bespoke equality and diversity briefings and unconscious bias training being provided for panellists involved in selection decisions.

Looking more broadly at research assessment methods, and in particular metrics, some further concerns emerge for the treatment of doctoral researchers. The widespread use of questionable metrics such as the use impact factors of journals to judge the quality of the papers they publish in appointment decisions can force doctoral researchers in particular directions of orthodoxy in their subjects which in turn may have implications for students from backgrounds in ‘protected characteristics’. Cumulative indicators such as h-indices discriminate against late-entrants and those undertaking career-breaks. A movement for ‘responsible metrics’ includes calls for diversity to be recognised “accounting for variation by field, and using a range of indicators to reflect and support a plurality of research and researcher career paths across the system.”<sup>2</sup> There is a body of evidence suggesting that articles with women as senior authors are less frequently cited than those with men in the same positions. Explanations include less self-citation, reduced opportunity to develop an international profile through travel and unconscious gender bias.

From the perspective of doctoral education, it is critical that such biases are recognised and that measures to eliminate them are built in from the founding base of a research career. It is also incumbent upon supervisors and those making early employment decisions that they pay balanced attention to quality and potential without succumbing to indicators which may already embody elements of bias.

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1 Equality and diversity in the 2014 Research Excellence Framework: A report by the Equality and Diversity Advisory Panel (EDAP), HEFCE January 2015

2 Wilsdon, J., et al. (2015). *The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management*. DOI: 10.13140/RG.2.1.4929.1363

## Diversity in the South African Higher Education Context: Challenges and Opportunities

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In thinking about diversity in South African higher education, there are different layers to consider. There is diversity in terms of internationalisation of the student body, in race, of institutional offerings, and of curriculum content and in opportunities for cross-disciplinary work. South Africa has a complex and fractured past, where the political system legislated against diversity in education. Schools and tertiary institutions were divided on racial and ethnic grounds until the advent of democracy in 1994. This has spawned an unenviable legacy, which has required fundamental structural changes at all levels of the education system, including in governance and legislative frameworks. Basu (2017: 3) notes that this rising global inequality has been accompanied by a surging sense of disenfranchisement that has fuelled alienation and anger, and even bred nationalism and xenophobia.

The changes in higher education in the last decade have including trends towards diversification of curriculum offerings, specialisation and institutional diversity. Higher degrees are seen as playing an increasingly important role in preparing students for the knowledge economy. Universities in Sub Saharan Africa have had to reposition themselves to engage with global trends, preparing students to live in a world that is more connected in cultural and economic terms, and in which there is a need for increased economic development and competitiveness (Cloete; 2016)

Diversity in the UJ context has had several different iterations and forms, including creating diversity in terms of social class, with the student profile largely shifting to working class, first generation university students who have had the opportunity to access tertiary education. This is very much within the UJ goal of equitable access to academic excellence for all its students. In addition, qualifications have been diversified to include professional doctorates, postgraduate diplomas, and online degrees. Diversity in the curriculum was foregrounded by the widespread protests in 2015-2017 with calls to decolonise the curriculum. There are also moves to actively diversify the postgraduate and postdoctoral community, through its Pan African and international focus. The funding for postgraduate students favours the STEM disciplines and UJ ensures diversity in the student body through a focused funding strategy that ensures funding for students from all disciplines. A common set of values underpins our notion of diversity and has gone far in establishing an inclusive community. However, there are targets and parameters which guide this, such as ratios of national to international students, staff profile requirements which promote but also limit diversity.

In South Africa, the commonly accepted rationale for the internationalisation of education and the promotion of diversity includes positioning the country as one in which the higher education system is competitive in a globalised world and where the quality of higher education is advanced so as to contribute to the public good.

The postgraduate ecosystem in the rest of Africa is challenging. Issues include inadequate funding for research and doctoral studies, competing national and regional priorities, the preference of many academics for consultancy over teaching and research, limited innovation, low institutional capacity, lack of academic freedom, poor quality supervision and a lack of infrastructure including ICT. All this mitigates against the promotion of diversity. The 2016 UNESCO statistics show that the top five

countries from which our international students come are Zimbabwe, Namibia, Democratic Republic of Congo, Lesotho and Nigeria. Although the demand for doctoral education in Africa is growing the levels of provision and enrolment rates are low.

The most recent White Paper on Internationalisation (DHET: April 2017), addresses the promotion of diversity in knowledge production, intellectual property and innovation by enhancing international research collaboration within the region, across Africa and globally. The implementation of these lofty ambitions has been uneven, partly because of tensions that exist between national goals and all-African needs; because of the risks inherent in transnational collaboration; and because of regulatory issues at all levels of the system. The draft policy based on this White Paper has addressed many of the concerns that exist around the disconnect between internationalisation and South African policies.

There are currently 26 universities in South Africa. These are classified as traditional universities (11), comprehensive universities (9) and universities of technology (6). Three universities were established in 2013 - 2014. In 2017 there was a total of 71 416 international students (6.6% of all students), enrolled in the public higher institutions (compared to 46 687 in 2002). Of the international students, 71% percent were from SADC countries, 18% from other African countries, and 11 % from the rest of the world (HEDA : 2018).

Of the 2129 doctoral graduates in South Africa in 2013, 62% were South African, 14% were from other SADC countries, 17% from other African countries and 7% from the rest of the world. This area has seen rapid change, and by 2017 42 % of the 2 998 doctoral graduates were international with 16% from other SADC countries and 20% from other African countries. Within SA, there is differentiated higher education system, with 60% of the 2017 doctoral graduates produced by six of the universities (HEDA : 2018).

At the University of Johannesburg (UJ), there have been active attempts to create a more diverse student population. We have a current student population of 50 628. Of these, 13.88% of postgraduates and 5.70% of undergraduates are international. At a doctoral level 63% are South African, 14% from the rest of SADC, 20% from the rest of Africa and 3% are from the rest of the world. Only 39.6% of the doctoral students are female and 68.5% are black, 3.3% are coloured, 7.8% are indian and 20.4% are white (HEDA : 2018).

Although most South African universities have embraced diversity, there are concerns and debates. While there is common agreement that diversity is an important goal, in the African context we would argue that there are some key principles which must guide its pursuit. The questions of 'whose knowledge', of knowledge building and equitable sharing, of matching global and Pan African development goals are vital. Enabling Africa to grow its own capacity for producing knowledge must remain a key principle. The opportunities are there to grasp through the CGS network. These include student funding which promotes equity, quality and excellence, split site doctoral schools and joint supervision, and in the pan African context, building knowledge using indigenous and local knowledge systems to encourage contextual relevance.

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## Diversity on Egyptian University Campuses

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Campus diversity per se is not identified as an issue of priority in most universities in Egypt, whether public, national or private. However, measures are in place to maintain and enhance accessibility to higher education, including graduate education, to a “diverse” population of students. This is conducted with the ultimate aim of achieving better accessibility, rather than creating diverse campuses. It is useful for this discussion to specify the three categories of universities in Egypt. Public universities are ones which rely on governmental financial support for operation. Mostly, they do not charge tuition, and the cost of education to students is minimal. An increasing trend over the past decade has been the development of special credit-hour-based programs which charge limited tuition. A number of these public universities started as national universities, and became public ones with the change of higher education policies in the 1950s and 1960s. National universities on the other hand are institutions that are non-governmental and not-for-profit, relying on both donations and tuition for operation. Private universities are ones relying primarily on tuition for operation, and which are privately owned. They are not not-for-profit institutions, in spite of some claiming otherwise. There are two international universities in Egypt. The American University in Cairo was established in 1919 as the third oldest university in Egypt after Cairo University (1908), and Azhar University (975). The Arab Academy for Science, Technology and Maritime Transport was established in 1972 as an Arab League institution for higher education.

One of the aims of changes in education policies and administration in Egypt in 1950s was to increase accessibility to higher education through strongly subsidizing its costs. This was conducted within the overall intensely socialist orientation in Egypt during the 1950s and 1960s. In this respect, the model of higher education institutions changed from a non-governmental not-for-profit model charging tuition to a public institution model with governmental financial support and no tuition charged. Existing universities became public ones, with the exception of The American University in Cairo as a result of its international status, and almost all new universities established till the late 1980s were public ones. Minimal tuition led to improved accessibility to students from diverse socioeconomic backgrounds. Women’s accessibility to higher and graduate education was also a strategic priority during this period, and the percentage of female students steadily increased to the current 55% of the student body. This improved accessibility has led to an increased campus diversity. In addition, bilateral agreements between higher education authorities in Egypt and their counterparts elsewhere, typically in Sub-Saharan Africa and some Arab counties, encouraged accessibility to specific programs at public Egyptian universities for students from these countries. Such agreements also contributed to increased diversity on some campuses and in some programs, even though diversity was not the primary aim of these agreements.

The three decades of 1970s, 1980s and 1990s witnessed challenges for public higher education institutions in Egypt related to availability of resources and to effective responses to increasing population pressures. These challenges may have impacted the quality of higher education in these institutions, however, the policy of minimal tuition was maintained, and accessibility to higher and graduate education remained high for different socioeconomic groups and women. The pressures on public higher education institutions led to reviews and updates of higher education policies in the late 1980s allowing the establishment of private universities and national universities. These are Egyptian institutions, with some having affiliations with universities overseas, which charge tuition,

and thus by default, are less accessible to students with lower financial means. Though campus diversity is not an explicit objective for private and national Egyptian universities, recruitment of students with different educational experiences, including students from Arab countries, has been a target. Newly established national universities, being not-for-profit, have established ambitious need-based financial support tools to improve accessibility to students from lower-income backgrounds.

Today, diversity, as an objective, remains off the chart for most universities in Egypt, and the focus remains on maintaining or enhancing accessibility mostly to students from different socioeconomic backgrounds, but also with different educational experiences, and to a lesser extent, to students from overseas. The diversity this accessibility brings to campuses is yet to be optimally utilized for enhancing learning experiences, and for effectively developing campus support mechanisms for the different student groups.

The American University in Cairo (AUC), representing the only example of American Liberal Art higher education institution in Egypt, with well-recognized graduate programs, has had diversity representing not only a strategic priority for decades, but also an essential objective for the university's establishment as a bi-culture institution. It is one of the objectives of the current strategic plan, and it represents an integral part of each of the five strategic pillars of the plan (Quality of Education; Internationalization; AUC Experience; Institutional Effectiveness; Innovation). Historically, the diversity of nationalities has been the focus, with an emphasis on attracting US students to campus as degree seeking students, for learning Arabic, as well as for study-abroad experiences. The past four decades have witnessed an evolution of the concept of diversity on campus. Though attracting students from the US is still a priority, diversifying the body of international students (as well as faculty and staff members) has become important. Active recruitment, particularly at the graduate studies level, of students from Europe, the MENA Region, and Sub-Saharan Africa is now key. In addition, the diversity of educational experiences and socioeconomic backgrounds has been enhanced, especially for graduate studies. About 60% of graduate students at AUC have obtained their bachelor degree at a public university, and about 70% of graduate students receive financial support. Targeting the refugee population in Egypt has been a particular focus for the past three years, and a special fellowship was established to this end. The development of support mechanisms for enhancing inclusive educational opportunities has led to a rise in the numbers of students with disabilities on campus. Last but not least, age diversity of the student body has been recognized as an important factor for campus diversity, positively impacting the status of graduate studies, which represent the typical venue for mature students on campus. Gender diversity is not a priority, as female students represent about 60% of the student body.

Active support to the diverse student groups on campus includes a wide range of initiatives which aim at maintaining a campus culture that enhances transformative learning. In addition to need-based financial support, examples of such initiatives include remedial English language courses supporting students with educational experiences falling short of expectations for English language skills; remedial Arabic language courses for international students seeking degrees requiring Arabic proficiency; academic workshops beyond the curriculum to consolidate needed skills; professional development programs for transferable skills; institutional support grants for international research and study-abroad experiences; as well as co-curricular transcripts promoting student activities, where inclusivity is promoted. Continuous efforts to integrate diversity in the curriculum at AUC aim at consolidating learning experiences.

The model for campus diversity The American University in Cairo offers is dynamic and continually evolving. It is also unique in Egypt and does represent a way forward for enhanced diversity on Egyptian higher education campuses.

## Canada's Efforts to Address Equity, Diversity, and Inclusion in Academia

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The issue of diversity in graduate education (in fact in all university education) remains largely unexplored in most senses in Canada. Universities do not typically collect demographic information about their students with the exception of gender, age, birth place and nationality. Because of this we tend to live in a state of unawareness about the exact differences in access to graduate education experienced by different sectors of our population. This is partially because our entire university system is built around principles of access which are meant to remove economic barriers (low tuition and government student bursaries and loans readily available depending on family income) such that we tend to assume no other substantial barriers exist. Of course, this naive assumption is not correct and depending on regional location, family of origin and discipline barriers of varying degree exist.

One source of data about the demographics of our graduate student population is the “Canadian Graduate and Professional Schools Survey” which surveys students across most of Canadian Universities. According to the 2016 version of this survey about 40% of our graduate students identify as a visible minority. This can be compared to the Canadian population at large of which 22% of people identify as visible minority.<sup>1</sup> The enhanced proportion of visible minorities in graduate programs is related to international students (about 23% of our overall graduate student population) and very importantly the fact that visible minorities in Canada have a higher degree of post-secondary education achievement at college, undergraduate and graduate levels than do people who do not identify as a visible minority. These numbers however tend to obscure important barriers that many people face in achieving success in academic and other careers. In order to explore this issue, I will consider the Canada Research Chairs (CRC) program as a measure of the ability of our graduate students to obtain the most prestigious academic positions in the country.

The federal government funds about 1800 Canada Research Chairs of which 26% are held by women, 13% by visible minorities, 2% by persons with a disability and 1% by Indigenous peoples.<sup>2</sup> These classifications come from the Canadian Employment Equity Act that identifies four designated groups which require “special measures and the accommodation of differences” in order to achieve “working conditions that are free of barriers”.<sup>3</sup> Of our graduate student population 59% are women and 40% identify as visible minorities. Clearly even though access to graduate education appears equitable, significant barriers exist for both women and visible minorities to achieve the most prestigious positions. In fact, such barriers are seen in many different employment outcomes where women and visible minorities are more likely to be under-employed.

In 2017 the CRC funding agency implemented an “Equity, Diversity, and Inclusion Action Plan”<sup>4</sup> which requires universities to meet targets for the four designated groups or risk losing access to the CRC program. The targets were set by discipline: (1) natural sciences and engineering, (2) social sciences and humanities and (3) health sciences using statistics for grant applications at our

1 <https://www.catalyst.org/knowledge/visible-minorities-canada>

2 <http://www.chairs-chaires.gc.ca/about-us-a-notre-sujet/statistics-statistiques-eng.aspx#a3>

3 <https://www.canada.ca/en/employment-social-development/programs/employment-equity.html>

4 <http://www.chairs-chaires.gc.ca/program-programme/equity-equite/action-plan-plan-action-eng.aspx>



corresponding 3 national granting agencies. The proportion of CRCs from each of the designated groups is expected to be the same as the proportion of grant applications from each of the designated groups. This imperative had an immediate impact on CRC nominations as shown in the table below. Of course, even though we are seeing a more equitable distribution of chair nominations, it will take many years to change the demographics of the CRC program as a whole. Additionally, the plan does not address barriers that are specific to certain disciplines such as women in STEM nor does it consider barriers to entry to the professoriate in general. For example, women earn about 32% of the doctoral degrees granted in Canada in the fields of natural sciences and engineering but make up less than 20% of the faculty in these fields.<sup>5</sup>

#### **CRC Nomination rate of individuals from the designated groups<sup>6</sup>**

Designated Group	Pre-action plan	Post-action plan	
	Nominations submitted to April 2017* cycle	Nominations submitted to October 2017* cycle	Nominations submitted to April 2018* cycle
Women	30.2%	40.8%	43.7%
Indigenous Peoples	3.6%	--	4.4%
Members of Visible Minorities	17.7%	17.8%	23.4%

\* In keeping with the Privacy Act, if the number of chairholders who self-identified as belonging to one of the four groups is less than five, it is not provided to protect the privacy of chairholders.

It seems clear that regulations set by the national funding agencies have a strong impact on the behavior of universities with respect to equity, diversity, and inclusion. It is also clear that such regulations are limited in scope by the mandate of the funding agencies and related national legislation. The most successful regulations appear to be in the realm of employment likely because of the scope of the Employment Equity Act and its explicit protection of designated groups. Although limited in scope, these initiatives hold very important potential for improving equity, diversity and inclusion at all levels in academia and represent an important step for Canada. There are however many things currently missing from our national efforts including addressing the fundamental diversity issues in disciplines and in the professoriate in general are protecting other vulnerable groups such as the LGBTQ community.

<sup>5</sup> [http://www.nserc-crsng.gc.ca/doc/Reports-Rapports/WISE2017\\_e.pdf](http://www.nserc-crsng.gc.ca/doc/Reports-Rapports/WISE2017_e.pdf)

<sup>6</sup> [http://www.chairs-chaire.gc.ca/whats\\_new-quoi\\_de\\_neuf/2018/letter\\_to\\_presidents-lettre\\_aux\\_presidents-eng.aspx](http://www.chairs-chaire.gc.ca/whats_new-quoi_de_neuf/2018/letter_to_presidents-lettre_aux_presidents-eng.aspx)

## Access and Equity in the Australian Higher Education System

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Supporting and encouraging diversity in higher education is indeed an explicit goal of the Australian Higher Education system. The first objective of the Higher Education Support Act<sup>1</sup> which governs all delivery across the nation is to “support a higher education system that is characterised by quality, diversity and equity of access.”

Access and Equity has been a federal priority for decades and as far back as 1998 the West Review<sup>2</sup> concluded that equity groups remained under-represented in Higher Education. At least 10 federal reviews later – the findings remain the same and the questions continue to be asked about how to expand access to quality higher education to ever greater numbers of students from ever more diverse social, economic and academic backgrounds.<sup>3</sup>

There is broad consensus across Australia on the legitimacy of policy attention on underrepresented groups and acceptance of the government designated (and reportable) equity groupings:

- Australia’s Indigenous People
- People with disability
- Low socio-economic status (SES)
- People from regional and remote areas
- People from a non-English speaking background (NESB)
- Women in non-traditional areas

There is also growing attention to ensure there is no disadvantage or discrimination based on other such as religion or sexual orientation.

At an institutional level, greater priority may be given to particular equity groupings. Table 1 shows which are monitored by equity indicators in federal reporting, which have federal funding or support programs to increase engagement and how universities prioritise these equity groups within their strategic plans or annual reports. Despite federal reporting requirements for most of these groups, in 2018 most universities seem to have focussed their attention Indigenous participation, followed by regional and low SES engagement.

**Table 1- Australian Higher Education Equity Groupings<sup>4</sup>**

Group	Equity Indicator	Equity Program	University Strategic Plans	University Annual Reports
Indigenous	X	X	37	21
Regional	X	X	22	8
Low Socioeconomic Status	X	X	21	14
Disability	X	X	10	13
Remote	X	X	8	8
Non-English Speaking Background	X		2	7
Women in Non-traditional Areas	X		1	2
First-in-Family			6	2
LGBTI+			2	14*

1 Higher Education Support Act 2003, Australian Government

2 1998 Learning for Life: review of higher education financing and policy (West Review)

3 Higher Education in Australia A review of reviews from Dawkins to today - Department of Education

4 Equity Performance and Accountability, Matt Brett, La Trobe University, June 2018

*So what is done nationally to address equity and diversity in our universities?*

At its core the higher education system in Australia reduces the financial constraints to equity of access through its student funding systems. Domestic coursework students can defer the payment of their tuition fees through an interest free Higher Education Loan Program – with repayments only required when their (usually post-graduation) income reaches a certain level. The majority of domestic postgraduate research students have all of their tuition fees covered by the Research Training Program (RTP) and may even receive an RTP or university funded living stipend for the duration of their candidature.

There are also other programs that provide specific support to equity groups. The Higher Education Participation and Partnerships Program (HEPPP)<sup>5</sup> aims to ensure that Australians from low SES backgrounds who have the ability to study at university have the opportunity to do so.

The Disability Support Program provides funding to eligible higher education providers to undertake activities that assist in removing barriers to access for students with disability and Rural and Regional Enterprise Scholarships<sup>6</sup> support regional and remote students to undertake STEM (Science, Technology, Engineering and Mathematics) studies.

Progress is being made across the higher education sector in Australia and the 2017 Higher Education Student Statistics showed that participation by all key equity groups had increased since the previous year, albeit some from a low base. Results for all course levels show that:

- Students from Low SES backgrounds comprise 15.8% of all domestic on-shore students. ▲ 0.4%
- 58.1% of all domestic students are female. ▲ 1.7%
- Students in Regional Areas comprise 20.1% of domestic on-shore students. ▲ 0.5%
- Aboriginal and Torres Strait Islander students comprise 1.7% of all domestic on-shore students. ▲ 8.3%

The Australian Council of Graduate Research (ACGR) is particularly focussed on the diversity of our nation's doctoral and masters by research programs rather than postgraduate coursework programs. That is, any course of study that consists of 66% or more of research activity – known in Australia as Higher Degrees by Research (HDR).

The national imperative for equity is as strong at the postgraduate research level. A recent national review of Research Training by the Australian Council of Learned Academies (ACOLA) entitled *Securing Australia's Future*<sup>7</sup> clearly stated that:

Actively encouraging diversity within research training will produce a more equitable system, provide a greater scope for new knowledge, improve cohort experience, strengthen the research system, and will help advance Australia towards an innovative and prosperous future.<sup>8</sup>

2016 student data showed some improvement since 2015 in each category but the rates of engagement by indigenous and low SES research candidates are significantly lower than in coursework programs. Interestingly, students in regional areas are better represented in the postgraduate research population.

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5 <https://www.education.gov.au/higher-education-participation-and-partnerships-programme-heppp>

6 <https://www.education.gov.au/rural-and-regional-enterprise-scholarships>

7 <https://acola.org.au/wp/PDF/SAF13/SAF13%20RTS%20report.pdf>

8 <https://acola.org.au/wp/PDF/SAF13/SAF13%20RTS%20report.pdf>

- Students from Low SES backgrounds comprise 8.2% of all domestic HDR students. ▲ 2.2%
- 50.6% of all HDR students are female. ▲ 0.9%
- Students in Regional Areas comprise 14.4% of all domestic HDR students. ▲ 0.9%
- Aboriginal and Torres Strait Islander students comprise 1.2% of all domestic HDR students. ▲ 6.2%

The 2016 ACOLA Review of Research Training 2016 also concluded that participation levels for Indigenous people were actually in decline due to higher growth rates of overall research student enrolments.

The subsequent Research Training Implementation Plan<sup>9</sup> detailed actions to be taken by key agencies including ACGR to address these equity issues. Indigenous student recruitment and support is a priority issue for Australian graduate research education and specific measures have been put in place to incentivise and provide for Aboriginal and Torres Strait Islander candidates. Significant investment has also been made by the government in a research internship program particularly targeting women in STEM. These initiatives will be further detailed in presentations by other Australian representatives later in the program.

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<sup>9</sup> <https://docs.education.gov.au/node/47901>

## **2: Creating a Campus Culture that Values Diversity**

## Practices of a Culturally Inclusive Campus: The Case of the University of Johannesburg

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### Summary

In the past decade, the number of international students at South Africa universities has grown dramatically. South Africa universities benefit in numerous ways from the knowledge, skills and perspectives brought by students from different parts of the world. However, as newcomers, international students face multiple pressures that may affect their academic performance. Foremost among these is their level of English language proficiency (accent, pronunciation, slang, colloquial phrases, etc.), but there are many other stresses that they may also encounter. Many international students report that they find the instruction of their classes either fast-paced or slow-paced because they must make many adjustments, not only to language and communication styles, but also to the South Africa educational system, and to other cultural and social differences, while trying to absorb new academic content and ideas.

Being aware of these academic and non-academic challenges - international students can help the institution respond to them in ways that enhance their academic performance. Chief among the non-academic obstacles that international students encounter is the real and perceived scrutiny they undergo when applying for a visa. The tightening of immigration restrictions has made it difficult for many international students to get their permits approved or renewed on time. This scrutiny extends not only to their visas but also to their course of study if it includes courses listed as critical skills by the South Africa Department of Higher Education. Considering these myriad of issues, the responsibility is on the higher education system to create a culturally inclusive and diversified campus that supports all students.

### A culturally inclusive campus

A culturally inclusive campus is one that promotes laws and policies that ensure cultural participation, access, and the right to express and enact their unique cultures. According to Tatum (2007:21), an inclusive campus creates an environment that acknowledges the continuing significance of race and racial identity in ways that empower and motivate students to transcend the legacy of race in the society even when the composite of the classroom continues to reflect it. It further enables each student to understand himself or herself as a unique, competent, and valued member of a diverse community (Lindsey et al., 2005:44) and overall, an inclusive campus creates an environment that engages all students, so they are successful.

Cultural inclusion calls to mixing the best problem-solving, creative, innovative and tactical practices in a particular higher education setting. However, there are some challenges that impede cultural expressions. These include inter alia cultural and religious intolerance, and xenophobia that manifest in South Africa. Language, which is a vital mode for cultural expression, can also be a challenge for international students who speak less languages different from those officially recognised within the South African context. While multicultural campus foster tolerance, embraces inclusion, and are usually harmonious campus that attracts international students and faculty to broaden and prepare their students as global citizens.

## **The University of Johannesburg's response to the creation of a culturally inclusive campus**

The UJ's culturally inclusive project highlights how cultural inclusion and the promotion of diversity are crucial to the development of students and faculty to enable them to contribute to the economic and social success of South Africa. For instance, the shift to online learning at the postgraduate level; UJ is creating a generation of globally connected and fully enabled global citizens. Moreover, it is serving the needs of an adaptable, sustainable, knowledge-based economy, which plays a significant role in nurturing a democratic, diverse, and inclusive society.

The UJ is committed to achieving inclusive excellence at all levels on its campuses. Here are highlights of some crucial steps that have been taken over the past decade to foster a welcoming environment that values diversity and inclusion:

- Establishment of the Office of Transformation across all campuses to respond to the needs of staff and students. The Council, Management and Senate of the University have pursued a transformation agenda since its inception and continues to do so. The university leadership, as the most essential component of institutional culture, is committed to leading the transformation process within the university thereby contributing to the creation of future leaders for a diverse and democratic society;
- The organisation of the annual UJ internationalisation festival that encourages all students to appreciate the value of amicable living as part of a diverse peer group;
- Quarterly visit by senior UJ management to all campuses for discussions with staff and students;
- The organisation of debates via the UJ library where students are challenged to think critically about their assumptions, seek out knowledge and develop informed perspectives. Thus, building valuable skills that translate into a more favourable attitude toward diversity and ultimately inclusivity;
- Deliberate recruitment practices designed to attract a diverse faculty to the workforce;
- Through various divisions and centres for academic learning, UJ instructors are encouraged and taught on how to incorporate academic content and decolonialised pedagogical approaches to teaching into their course content. Faculties, centres; units, etc. that value diversity are more likely to include material that acknowledges inclusivity into their curricula offerings. These crucial issues are redefining the current South African education landscape.
- UJ also ensures that ongoing feedback is gathered from the students and staff to evaluate whether the institution is communicating a positive message about diversity; through the student learning experience survey.

There are many considerations when working toward an inclusive campus; from student participation to faculty and administrative discussions.

Some practices of a culturally inclusive campus include:

- Establishing a culture in which the agreements, conditions and compass of courageous conversations are practiced and eventually internalised by staff and students;
- Taking a principled position on critical issues. They know that a culture of silence is unproductive; hence they know when to speak up, and how to speak;
- Working cooperatively through a community of leaders from inside and outside the institution to determine a set of core values to guide all relationships within the

institution;

- Focusing on teaching and learning abilities and capabilities by being sensitive to students' academic, socio-economic differences; and
- Discovering and communicating a personal need for an understanding of students and all members of the community.

Overall, an inclusive campus creates a range of resources to engender a culturally inclusive campus for the benefit of the staff, students and administrative cohort.



## Embracing of Diversity and Difference in Higher Education

**Ahmed C. Bawa**

**CEO**

**Universities South Africa (South Africa)**

While universities may be deemed by virtue of their nature as knowledge intensive institutions to be global in perspective, they have an intricate and fine-grained relationship with the societies and contexts in which they are embedded. Their purposes and goals are shaped by their philosophical and functional presence within these two contexts and in a myriad of others between them. As such the way in which they address diversity has to be nurtured and shaped in this spectrum of contextual conditions. In terms of the higher education white paper of 1997 and the numerous policy papers produced since then, the role of higher education in South Africa has always focused on, amongst others, the challenges of nation-building and on building an active citizenry. While there have been shifts in the demographic profile of post-1994 South Africa, deep and structural forms of race, class and gender inequities continue to be pervasive, and even deepening, as seen by a continuing reproduction of apartheid-era urban and rural geospatial planning. In essence this means that South Africa continues to be a deeply divided society with communities separated across class, race and ethnic boundaries, reproducing themselves at primary and secondary schools and at post-school institutions.

Universities bear a responsibility to create suitable ecosystems that consider these objective conditions and to develop creative spaces that permit students (and their communities) to intersect with each other, to encounter each other, to shape collaborative spaces that address the political conditions that generate these boundaries. Short immersive courses on diversity, important as they are, are not enough. Structures need to be developed that provide the basis for engagement in spaces designed for social and emotional growth. Nation-building in South Africa has to be seen a process of construction, as a process around which there is a certain level of deconstruction of meaning and categories. For university students one has to see this as an engagement with diversity that increases in complexity over three years.

In this light the embracing of diversity has to be seen as contending with and embracing difference. Societies with large diversity and difference differentials, real or perceived, have to work towards the construction of nation narratives that cohere and are cohesive, nation narratives that are also empathetic to the notions of global citizenship. This is a project of social creativity which requires a particular ecosystem to take root in. In other words, this is an opportunity to think of university-based programmes and projects in building a campus culture that values diversity as one that enhances understandings of diversity and difference but also galvanises creativity that moves South Africans towards national narratives that help us to shape new approaches to nation construction.

Creating campus cultures that value diversity as an ingredient in the overall development of undergraduate students is well recognised. The question is how do we ensure that the programmes our universities engage in are indigenously designed so that they address the key social issues of the time. This does not of course mean that there shouldn't be collaboration across different national systems in the construction of such programmes but it does mean that there must be epistemic connection with what students bring with them into the university and

with the sociocultural challenges young South Africans face as they navigate through the next 25 years of our transition to democracy. At the same time, the impetus for the constitution of global communities, knowledge commons and fundamental international interdependencies has never been greater in the context that so many of the challenges faced by societies like ours are simultaneously intensely local and global.

What then should we focus on in creating campus cultures that value diversity?

1. We have to begin by ensuring that there is an institutional understanding of what the purposes and goals are for the mounting diversity-related programmes. Care has to be exercised that this process is properly indigenised so that the programmes relate to both the needs of individual intellectual, social and emotional growth and to the production of social outcomes relating to large national projects of nation-building, addressing the devastation of gender-based violence, preparing graduates for global citizenry, addressing issues of xenophobia, and so on.
2. The programmes have to be contextualised in the sense that they draw on the learned experiences of students as points of departure, that draws on local literatures and art, that interrogate existing historiographies through this period of intense transitions and perhaps most importantly to understand the need for large dollops of empathy.
3. The creation of an intellectual and physical ecosystem that is seen to be designed for engagements on diversity would be important so that these are not seen as individual interventions but rather institutional and systemic ones.
4. The programmes would have to span both first and second curricula so that really well-thought out theory-praxis nexuses may be developed as sites for creative innovation and invention – where new narratives of South African futures may emerge through organic engagement.
5. The construction of engagements on diversity must include the development of some level of tension as a way to explore ‘unsafe’ spaces as terrains for invention and re-invention. The introduction of the notion of difference may help as a way to produce such tension but just sufficient amounts of it to facilitate the unfolding of creativity.
6. Building vertical streams of academic and engagement activities on diversity and difference ought to be considered, designed and perhaps integrated into the curriculum. The reason that this is important is to ensure that there is escalation in the complexity of understandings, that there is growing intellectual and experiential capacity amongst graduates to address what is an important challenge of this nascent democracy.
7. The institutional adventures in diversity and difference should also provide the basis for broader social engagement with these ideas.
8. Academic activities that are aimed to enhance the engagement with the notions of diversity must be properly integrated into the design of programmes of learning rather than be seen to be standalone offerings (even when these are compulsory). This means also that they should be properly funded.

In conclusion, it would appear that if we are convinced that this is part of a large project of social renewal then we should embed it properly into the core activities of the institution.

## Diversity in Doctoral Education – It’s All about Talents

*Hans-Joachim Bungartz*

**Graduate Dean**

**Technical University of Munich (Germany)**

One of the main goals of every responsible university is to conduct excellent research. A crucial prerequisite for that are talents. Hence, in its Mission Statement, the Technical University of Munich (TUM) formulates “We invest in talents.” To attract talents, a university has to provide an environment that allows its researchers to expand their potential to their fullest.

### **Which role does diversity play in higher education and research?**

When analyzing the discourse on diversity, scholars often differentiate between human rights or a social flavor and a business-oriented agenda. Universities have to follow both rationales. On the one hand, an educational system must provide equal opportunities to everyone: to its students as well as its employees. On the other hand, increasing an institution’s internal diversity is one of the most effective research support strategies – as diversifying knowledge by expanding and exchanging perspectives across disciplinary and international boundaries is a crucial success factor. It is therefore not surprising that heterogeneous teams achieve better outcomes – according to various organizational behavior studies. And also the employment market demands well-trained experts and future leaders who have not been socialized in a “mono-cultural” setting only.

Hence, universities do not only need a campus culture that values diversity – diversity is crucial for universities to be successful. Based on this insight, initiatives have triggered the establishment and further development of formalized agendas and modern university structures – at a national as well as an international level. Thanks to these endeavors, many diversity measures that had been an implicit part of many universities’ strategies and activities already before were made explicit and visible for the first time. One example is the Bologna Process with its clear focus on the comparability of higher educational systems across Europe to facilitate the mobility of young talents. At the same time, TUM serves as an example for the developments at national level: In the course of the German Excellence Initiative, TUM was able to convince the jury twice with a concept introducing diversity and talent management as one centerpiece of its institutional strategy – the TUM Graduate School (TUM-GS) being another outcome of the Initiative.

### **What does diversity mean in the context of doctoral education and qualification at TUM?**

At TUM, the principles of equality and diversity are anchored in the TUM Diversity Code of Conduct (2012) and are implemented through various personnel and structural measures. These include e.g. the diversity-responsive education at TUM, a family-friendly work environment, or the services of the Equal Opportunity Office.

TUM’s overall approach of investing into “Talents in Diversity” is also essential for the TUM-GS. And yet: Considering the various dimensions of diversity including potentially relevant intersections, we only have limited insight into the personal characteristics of our members and therefore focus mainly on the rather “traditional” categories such as, nationality and gender:

- **Nationality:** 72% of our members are German, 28% hold a non-German passport. In this context, it is important to mention that for young talented researchers from abroad the most

important point of entry to TUM are our master's programs. Through the broad range of English-language study programs, the national/cultural diversity on campus is already quite high – which then carries over to doctoral education, and facilitates the situation there.

- **Gender:** As a university with a strong focus on the STEM fields, TUM (still) tends to attract more men than women: 33% of our over 6,300 doctoral researchers identify themselves as women, 67% as men. A category for gender identities that are not exclusively female or male has not been introduced in our administrative tools so far.

In fact, the limitation of information on our doctoral researchers is due to their legal right to privacy. Nevertheless, the TUM-GS implements various measures that complement the infrastructure and services that are provided by TUM as a whole. To adequately support talented researchers, our measures target early-stage researchers in the three main stages of their doctoral qualification: the transition into their individual doctoral studies, the ongoing doctoral research and education as well as the end of the doctoral qualification and, hence, the orientation towards whatever comes next.

### **Transitioning into doctoral qualification stage**

With our yearly Prep Doc event, we inform our ambitious master's students about the application process and main components of pursuing a doctorate at TUM. In cooperation with our worldwide liaison offices, we aim at recruiting excellent international early-stage researchers. To allow TUM professors and potential doctoral candidates from abroad to get to know each other personally, we provide the funding for a two-month stay at TUM. To increase the number of doctoral researchers with disability, TUM participates in a project which aims at enhancing the chances of master's students with disabilities to transition into a paid position as a doctoral researcher. Special lecture series and mentoring programs inform and support female students.

### **Support during doctoral education and qualification**

At TUM-GS, we design all our offers and services in a diversity-sensitive manner. During our mandatory three-day kick-off seminar we adapt accommodation and meals for our doctoral researchers with specific needs, based on religious background, chronic illness, or disability. We cover travel and accommodation expenses for doctoral researchers who may have to bring their children or an additional caretaker. If doctoral researchers cannot access their workplace or lab due to illness or pregnancy, they can apply for funding to hire an assistant. The TUM-GS supports research stays abroad with up to 3.000€ per doctoral candidate – doctoral researchers with special needs may apply on top for a supplementary travel budget of up to 500€. And to provide the opportunity of international experiences also to those doctoral candidates who cannot travel abroad, these internationalization funds can also be used to invite international researchers. Our networking event “Alumni to Newbies” provides a platform for TUM alumni/alumnae, professors, and externals to discuss current topics with PhD candidates and postdocs and, ideally, to inspire them for a research career. To increase the diversity awareness among our doctoral researchers, our transferable skills program offers various courses (e.g. unconscious bias, working in heterogeneous teams, value-based leadership). Moreover, our program features events designed exclusively for female doctoral candidates to provide a special platform to network and strengthen their skills set.

### **Finalizing the doctorate and transitioning out of doctoral qualification stage**

Doctoral candidates from all disciplines whose doctoral studies have been delayed due to pregnancy, parental leave, raising children, severe chronic disease/health problems, caring for fam-

ily members etc. can apply for financial support for up to six months. Coaching and career orientation services are available to everyone.

### **Conclusion**

TUM-GS complements TUM's structural and personnel measures in the area of diversity – albeit with a specific focus on its main clientele: early-stage researchers. To adequately address the diversity among TUM's doctoral candidates, we implement different support services and instruments – including an emergency fund, which supports doctoral researchers if none of the other mechanisms provides an adequate assistance. Through this, we want to contribute to TUM's overall mission: To invest in talents.

## Against the Odds: In Search of Diversity in Graduate Education in Central Europe

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### **Is diversity in graduate education a value in Central Europe?**

Diversity in graduate education does not figure high or might not appear at all on the list of institutional values and policy priorities in Central Europe. There is significantly less emphasis on diversity in graduate education in Europe overall, compared to North America. The development of graduate (or post-graduate) education in the European Higher Education Area (EHEA) is otherwise a remarkable phenomenon, started in 1999-2000 as a planned and coordinated process at continental scale. A set of common values and principles influenced these developments, for the most applicable to all layers of higher education (or “cycles” in the Bologna Process language), such as seeking intra-European comparability of degrees or increasing cross-border mobility. Diversity was explicitly mentioned in this context, although usually understood only in the sense that the cultural and linguistic diversity of the European countries must be preserved in a common space for higher education. Other European-wide goals, principles and values had or could have had some impact on diversity. Internationalization, student and staff mobility have added to diversity in many institutions, although a lot more in the West of the continent than the East, given a series of factors, including a marked imbalance in the flux of students favoring the West. Incoming students from outside the continent also go mainly to Western European countries rather than to the East, where internationalization is lot less of a reality. Another major action line of the Bologna Process, the so-called social dimension, called for creating conditions in all 48 countries of the EHEA so that “the student body entering, participating in and completing higher education at all levels should reflect the diversity of our populations” and for “widening overall participation and increasing participation of underrepresented groups”. There has been limited success in attaining these objectives, as shown by the Bologna with Student Eyes reports. The countries of Central and Eastern Europe have most often not much to report in this area, except having adopted certain measurable targets, which remain nominal, and policies that remain to be elaborated and implemented.

### **Creating a campus culture that values diversity in Central Europe. A case study**

Central European University (CEU) is a graduate university offering master’s and doctoral programs in the social sciences, humanities, law, public policy and management. It was established in 1991 to promote the development of open societies in the former communist countries of Central and Eastern Europe through advanced research, research-based teaching and civic commitment. At present, the University enrolls 1,500 students from over 100 countries, a majority recruited from its primary constituency, Central and Eastern Europe. CEU is one of the most internationally dense universities in the world and has an unusually diverse student body (and faculty) for Central and Eastern Europe. The University endeavors to maintain and strengthen its international character. For this, it first needs to maintain an international, by now indeed global, scope of recruitment, which is a major challenge for a small, private institution, which cannot rely on the support of any state agencies in this. Moreover, international recruitment - and international education, more generally - are made difficult by recent politics developments in Hungary, informed by populist and nationalist discourses, which result in unsupportive or restrictive regulations, sometimes to the extreme. Modifications to the national higher education law in 2017 make it difficult for international universities to operate in Hungary. CEU might

even be forced to close down or relocate to another country. The fact that many institutions and organizations, including the European Commission, came to the defense of CEU and specifically to the right to international education, mattered a lot but it is uncertain whether CEU could remain in Hungary. CEU's densely international student body brings about a high diversity in terms of ethnic and cultural backgrounds, which the University tries to acknowledge and celebrate through academic, cultural and social activities; we also try to cultivate and turn into a benefit for CEU students the large diversity of academic backgrounds, through an adapted curriculum and pedagogy. This is a continuing challenge for the University: how to avoid that we simply reproduce the dominant Western models of teaching and research in the social sciences and humanities? Another challenge is that national diversity does not automatically go hand in hand with diversity of socio-economic backgrounds. CEU has a large financial aid program. Doctoral students receive full financial support from the university and all other students receive at least partial support. From the very beginning financial aid has been distributed exclusively on the basis of academic merit as measured at admission, and need was not taken into consideration. This was not a problem in the early years when almost no student applying to CEU could have afforded to pay for quality graduate education in English. More recently, however, economic realities in the region, and also the composition of our application pool, have changed and merit-based financial aid might now favor students from well-off families, who can afford better academic preparation at undergraduate level. We are currently experimenting a need-based model for master's students, which is not easy to implement at graduate level. This change is motivated by considerations of fairness and promoting diversity.

CEU has put in place special graduate preparatory programs for members of marginalized or excluded social and ethnic groups, as well as special support for members of such groups once they enroll in graduate programs. For over 15 years now, we offer the only graduate preparation program for members of the Roma community from Central Europe (recently extended to other countries). While special higher education provisions for Roma exist in some countries at undergraduate level, CEU runs the only program training members of this group to apply to graduate school, and then supports them to complete graduate programs, both master's and doctoral. In this way, CEU has contributed to the education of a large part of the Roma intelligentsia in Europe. In a number of disciplines, the only Roma with a PhD degree went through our graduate preparation program. The presence of a large Roma group on our campus helps create unique academic and social dynamics, which are beneficial for all members of our University community.

CEU offers programs for legally registered refugees and asylum seekers in particular programs that allow them to resume or start graduate education. The political and legal environment in Hungary is highly adverse. We had to suspend recently not only educational programs for legally registered refugees, but also a research project focusing on refugee issues, funded by the EU. A legislative package adopted this summer in Hungary makes institutions that are deemed by the (tax) authorities as being favorable to emigration liable to a punitive special tax of 25% of their entire budget. CEU is seeking clarification of this legislation, adopted hastily and open to broad interpretation, and it is committed to restart these programs, most probably in cooperation with other institutions from other countries. It also will contest the constitutionality of the legislation.

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## What Does a 'Campus Culture' Mean for Higher Degree Research Students?

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The Australian National University, founded after WW2 as a postgraduate institution, emerged with a particular focus on Australia's place in its region and the world. The majority of students live and study near or in Canberra, with more than 5,000 (20% of the total) living on campus. A relatively small university by Australian standards, of 25,500 students around half are post-graduates. 36% of this total student population is international, and the recent Times Higher Education rankings of the most international universities in the world places ANU 10th (factors include proportion of international students and staff global collaborations). The campus environment is undergoing a massive infrastructural change – the first in decades – which will transform both learning, living and social spaces at the heart of the campus.

ANU is blessed with a rich cultural diversity of both staff and students; embracing and valuing diversity is at the heart of the University's strategy. Just over half of ANU's staff were born in Australia with the remainder (1800) representing over 100 nations. In common with all Australian universities, ANU strives to better serve the interests of indigenous staff and students, through a Reconciliation Action Plan, but struggles to increase the percentage of staff and students to match the population ratio of 3%. Total Indigenous staff and student numbers currently remain below 1% of each group.

The commitment to diversity as underpinning a healthy university culture is supported at the highest level by the Vice-Chancellor, and enabled by a Pro Vice-Chancellor Student Experience, emphasising important high-level commitment to diversity (Milem et al., 2005). Recent initiatives have focused on recruitment of undergraduates from low socio-economic backgrounds (currently 2.2%) with the lure of combined scholarship and accommodation packages. There are concurrent strategies for attracting indigenous students - a complex 'pipeline' requiring sensitive, bespoke solutions. There are concerted efforts to make STEM disciplines more attractive to women and an active Ally network promotes networks and support for LGBTQI students and staff; disability action plans help students manage their study. Scholarship opportunities further concretise a commitment to promoting diversity. The University's undergraduate and postgraduate student associations signed a collaborative agreement to work closely with the University on issues that benefit the student experience.

Many Australian universities are visibly celebrating diversity while failing to meet all of their targets, with academic and student leadership that remains predominantly white. Yet much is done to ensure 'symbolic strategies' (Williams et al, 2005) imprint a celebration of diversity as a feature of campus life. At ANU recent structural and strategic changes promise a transformed campus with student study, social, support and living spaces at its hub: but the 2,800 higher degree research students (12% of the student population) are not currently part of this massive campus refresh. Their symbolic absence raises a particular question: do HDRs identify with 'campus culture' and if not, is the risk that they are omitted from wider diversity agendas?



HDRs are older (in their 30s on average), less likely to live on campus (with fewer allocated spaces and a shortage of family accommodation). The benefits of the campus are less crucial in their decision to study, which focuses on their choice of supervisors and the physical and intellectual resources of their departments. At ANU around 30% of HDRs are international, about half are women and 1.14% identify as Indigenous: this is probably fairly representative. While campus facilities are available for all students, it is well known that HDRs don't always perceive them that way and central services frame their work to the majority in a coursework, semesterised paradigm of student life.

Having worked at two very different Australian Universities as Dean, HDR, the biggest challenge is encouraging self-perception of HDRs as a university-wide cohort who have experiences and challenges to share. There are also broader questions of how HDRs should or could relate to coursework students and better participate in student-led initiatives. Through research training inductions and guidance to ensure HDRs understand how central campus services – such as counselling, academic skills, careers - support them, as well as delivering research training with trans-disciplinary appeal. HDR 'learning environments' are faculty based and many access online journals from home and office, rarely setting foot in a library, where specialist support for researchers is often encountered too late or not at all. The most visible postgraduate cultures on campuses are accommodation aimed at postgraduates where there is fantastic intercultural exchange and enduring alumni involvement and identification with the institution after graduation.

The biggest concern in researcher communities is integrating international students and, where women are in the minority with disciplines, attracting greater numbers. Indigenous HDRs can draw longer and higher scholarships support, but their presence across a campus does not necessarily promote greater awareness of indigenous issues in the wider HDR community. Candidates with chronic health issues may struggle to find support tailored to research needs and few HDRs will find a 'campus culture' conducive to their needs.

While most university missions are 'on message,' creating an inclusive campus culture requires an embedding of these diversity messages in leadership, curricular and infrastructural layers. In the case of HDR candidates, perhaps there is a tendency to think they arrive with degrees that testify that the 'diversity work' is already done. Programs that include coursework rarely address these issues, though there has been a marked shift in the training environment to give greater weight to links with employers and engagement with research end-users. Given the importance placed on preparing graduate researchers for the workplace beyond academia and in light of research which suggests students exposed to diversity make better employees and global citizens, are we ignoring a vital part of research training here?

What a 'campus culture' for HDRs means is further problematised by the degree to which they are treated as students and the amount of focus on them as 'staff' – fellow researchers vital to this aspect of a university's work. While the focus of the twenty-first century PhD remains on the thesis there are more questions to be raised about what attributes should accompany this output and what further skills should be assessed? When we consider how to better make space on campus for this hybrid class of student-researchers we have to be mindful of the increasing evidence of mental health problems among this group and the shocking reality that many individuals feel isolated, undervalued and unsupported at the heart of our campuses.

Experiencing diversity, research suggests, has a number of positive outcomes for both an individual's social outlook and for their capacity to work in a precarious global environment where responsiveness to change is important. Australians have long battled with what multiculturalism means to them, and white domestic students are slow to access other social and cultural learning experiences, or exploit multiple opportunities for international exchange. Should other journeys of cultural exchange be at the heart of our campus and embedded in the higher degree research learning experience, as not just a social development opportunity but part of a crucial curricular experience? Our diverse body of academics and students makes this a viable opportunity, which our strategy should support. All HDR students need to feel they matter to the institution (see Supiano 2018), yet for current HDRS their sense of worth may rarely extend far beyond their department for much of their study.

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# **3: Recruiting a Diverse Student Body**

## Recruiting a Diverse Student Population at the University of Carthage

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For this academic year 2018/2019, the Ministry of Higher Education and Scientific Research is embarking on a new experiment through the registration program for foreign students at public universities. This program aims at the diversity in the institutions of Tunisian universities as well as a first step towards the financial autonomy of universities. Thus, it proposes to help Tunisian universities to recruit African students who will be interested in a high-quality teaching offer at the gates of Europe and which remains very competitive compared to those in Europe. Tunisia currently has 7,500 foreign students (including 3,000 in public institutions) spread across 14 public universities.

At the University of Carthage, we remain convinced that we live in a very diverse world and that this diversity must be reflected in our classrooms and our campuses. We believe that the training of future graduates who are our current students should be extended in addition to the technical aspects of the specialty of training in the various cultural aspects of society where they will practice later. This is how we rely on the environment of a diversified modern class, which represents a mini-society, to ensure the success of such cultural training. Then, this paper illustrates our strategy for recruiting diverse student population at the University of Carthage for a diverse world.

The University of Carthage has a student body of over 30,000 undergraduate and graduate students, including 202 international students from 24 countries of 3 continents. The main origin of the foreign students at the University of Carthage is Africa. They are spread across the 35 institutions of the university spread over 5 governorates on a radius of 50 kilometer. It is clear that the current percentage of foreign students remains very low considering the total number of students. However, our strategy is to capitalize on the experience of our actual foreign students in order to become much more appealing to a diverse population by increasing underrepresented minorities.

A large percentage of foreign students at the University of Carthage are Francophone who have opted for scientific studies in engineering and architecture. They are recruited through bilateral conventions between Tunisia and friendly countries. They come mainly from North and West Africa. By questioning these students, in what our academic programs are relevant to them, they all confirm the quality of the programs as well as their potential of employability perspective. This is naturally the case, for the work labor in their countries as well as in Tunisia and Europe, where many of them look for next destination. Thus, their success stories could serve as an example to follow for their compatriots and colleagues.

Our short-term strategy is to consolidate this francophone population coming from North Africa and West Africa through our current foreign students who will be our ambassadors. These students are involved in the cultural and scientific activities of different clubs of our schools and institutions at the University of Carthage. As part of these activities, they participate in the writing and production of content reflecting their experiences in Tunisia and in their countries

of origin and published in their magazines. These productions are shared on the web pages and Facebook pages of our institutions and also that of the university so that it is visible on a large scale. In addition, the University of Carthage has prepared a dedicated communication plan for this target population comprising videos, brochures and seminars led by the International Cooperation directorate. These materials include many of testimonies and success stories from that published in the university magazines, and are regularly provided in salons of Tunisian universities which are organized in these African countries.

We have to mention that international accreditations as well as certifications for many of our programs of the high demand schools by the foreign students are the insurance for them of the program quality. This program depends among other factors on the quality of the recruited students and their ability to assimilate their choices. Thus, as we are looking for recruiting a number of students that is equal to 10 or more times the current number, admission procedures and criteria are changing while considering the tradeoff between the number of recruited students and the degree of diversity. Thus, in order to grant an adequate choice of foreign students to the training courses offered at the University of Carthage, we plan the launching of the preparatory classes for their first years of access to the University. The preparation will be done in 4 major disciplines: Arts and Humanities and Social Sciences, Engineering and Technology, Life Science and Physical Sciences. An introduction to the Arab languages will also be provided during the preparation year. After this first year of preparation, students have to pass an exam after which they will be selected and oriented for their choices, for those who succeed the exam. However, for the rest of students, they will be advised by our experts to go to more adequate discipline which could be more adapted to their competences.

The University of Carthage has hundreds of conventions and memorandum of understandings with African Universities. We plan to activate these agreements, first for the process of recruiting students. In fact, we will allow more flexibility for the mobilities of students by allowing recruitment during the course of study (second year and more) and not only access in the first year of studies. These students will be recruited among those of the universities with which we have an agreement, and through an additional quota. Second, we will offer for our foreign students, the possibility to pass their pedagogic or research traineeships in their countries with the help of our partner universities.

In the current state of higher education in Tunisia and in particular at the University of Carthage, we live in full change and reform of the pedagogical approach, scientific research and university governance. Under such conditions, one cannot claim that the fallout of diversity at the university is other than financial. Indeed, with the transition to autonomy management and subsequent administrative control, the University is required to ensure a certain percentage of its budget. Thus, the recruitment of a new college of students presents a very practical and appreciated solution. However, it goes without saying that in view of the perpetuation of the autonomy and in the competitive framework that could present other national and especially regional universities the diversity in the university must satisfy the regional and global societal norms.

## Promoting Diversity at the University of Hong Kong

**Mee-Len Chye**  
**Dean, Graduate School**  
**University of Hong Kong**

The University of Hong Kong (HKU), being the oldest university in Hong Kong has traditionally attracted students from Mainland China and Asia. As HKU develops into a comprehensive research-led university of internationally standing, HKU aspires to attract more students from across the globe. In line with HKU's mission to provide first-class Research Postgraduate (RPg) education that meets the highest international standard, students are selected on merit regardless of any specific demographics requirements, ie country of origin, ethnic background and gender. To become Asia's global university, HKU seeks to expand its student diversity and the percentage of international students has grown steadily the past ten years.

### **Institutional structures work together to promote diversity**

To foster diversity in the student population, the HKU Graduate School works closely with the Global Office to actively seek new partnerships and enhance student exchanges. Together with various Faculties, HKU's Graduate School and Global Office recently teamed up to visit the University of Toronto (U of T) in Canada and the University of Chicago in the USA to enhance academic collaborations. A promising outcome was the establishment of the Global Strategic Partnership Fund between HKU and the U of T which aims to promote deeper institutional engagement resulting in broader local and international impact. Both institutions will contribute to the Fund on a matched fund basis to provide improved access to research opportunities across disciplines (<https://www.hku.hk/press/press-releases/detail/17868.html>).

In addition, the Graduate School is collaborating with the HKU International Undergraduate Admissions Office to promote RPg recruitment on trips abroad through the distribution of RPg admission posters and leaflets. To accommodate more international students, the HKU Campus Development and Planning Committee is partnering with the Centre of Development and Resources for Students to expand housing by planning new student residences around campus. The Hong Kong government is aware of the advantages diversity brings, and its Finance Committee of the Legislative Council approved in July 2018 a one-off grant of around HK\$10k million to its six funded universities, including HKU, to expedite the development of student hostels to meet hostel shortfalls. This endeavor will certainly help to attract both international and local students as hall life is an integral part of University education. It will enhance student learning and personal development, and create a more internationalized campus.

### **Connections, partnerships, and collaborations help create a diverse student body**

HKU has set up an Office of International Student Exchange to support student exchange agreements. Under such agreements, students from partners will be exempted from tuition fees payable to HKU. HKU has set up a joint PhD with King's College London, a Joint Educational Placement for PhD with the U of T, and a Joint Education Program for PhD between HKU and Southern University of Science and Technology. A candidate in these joint programs spends half of the study period in each partner institute. The Graduate School has worked closely with established partners of the *Universitas 21* network (<https://universitas21.com/>) through the Graduate Research Collaboration Award Scheme to encourage student exchange amongst at least three U21 partners. All these efforts have led to greater diversity in the student population

which will create a more intellectually stimulating environment for learning and broaden students' horizons.

To incorporate students from diverse backgrounds in RPg education, the HKU Graduate School has expanded its outreach activities the past recent years to recruit candidates from Mainland China, India, Korea, Malaysia, Taiwan, Indonesia, Vietnam, Brunei, Singapore, Australia, Sweden, the Philippines, Thailand, Greece and Germany. Academic staff are encouraged to promote the RPg programs to potential applicants at conferences/meetings abroad. The HKU Graduate School prepares Powerpoint slides and hard copy promotional materials for the academic staff.

In 2009, the Hong Kong Research Grants Council set up a Hong Kong PhD Fellowship (HKPF) Scheme to attract outstanding students from abroad to local universities to pursue full-time PhD programs. The value of the HKPF (~HK\$25K) is greater than the University Postgraduate Scholarship (PGS; ~HK\$16K). Additionally, the HKPF awardee has a travel grant each year to support his/her research. The HKU Development & Alumni Office has helped set up a University Postgraduate Fellowships (UPF) Scheme that is generously supported by several donors so that some candidates who miss out on the HKPF will be admitted through the UPF. Each UPF recipient receives a HK\$70K top up on their PGS.

This year, the Hong Kong Government has initiated a Research Endowment Fund that generates investment income to establish a 'Tuition Waiver Scheme' for all local students enrolled in full-time RPg programs at local institutions. This scheme will incentivize more local students to join RPg programs to help the government build up a pool of local research talents to sustain Hong Kong's competitiveness and propel the development of the higher education sector.

### **Challenges in recruiting a diverse student body**

The increase in the number of Mainland China students among the HKU RPg student population reflects the closer ties between Hong Kong and Mainland China following the Handover of Hong Kong to China in 1997. Also the Handover coincided with a growing number of academic staff (RPg supervisors) that originate from Mainland China. Hence, it is not surprising that the current HKU RPg student population consists of around 62% from Mainland China, 24% local (Hong Kong), and 14% international students. Challenges faced in increasing the number of international students from Asia include stiff competition from universities in N. America, Europe and Australasia, as students may prefer to spend a part of their lives in an environment outside Asia. HKU's placement in internationally university rankings (25th on QS Rankings 2019) may work in her favor to attract RPgs from afar.

## Supporting a Diverse Doctoral Candidate Population

**Alexander Hasgall**

**Head, Council for Doctoral Education  
European University Association (EU)**

In order to discuss the question of what universities are doing to ensure diversity in the doctoral education population, it is necessary to assess how this population is composed. However, this is not easy for reasons of lack of data, and other contributing historical and political factors. The diversity of practices in doctoral education makes it very difficult to capture consistent numbers. According to a European University Association (EUA) study on the current status of doctoral education in Europe, 82% of the institutions register doctoral candidates on admission, but only 64% register the doctoral candidates at regular intervals (EUA (2018): Study on doctoral education in Europe (forthcoming)). There is neither a single form of data collection nor a specific place where the data resides. The form of data collection and where it is housed depend on the status of the doctoral candidates within the institution. There are countries where the doctoral students are managed as employees within the Human Resource Department, while in other countries, they are the responsibility of the student department. Also, doctoral schools have different responsibilities. Often the doctoral school is located at the faculty level, and since faculties are differently organized, this makes it harder to gather numbers and information about doctoral programmes across the institution. Access to the programme, too, can be different: while in certain institutions and countries a master's degree is sufficient to register as a doctoral candidate and there is no fixed time for completing the programme, there are stricter guidelines elsewhere concerning the access and duration of the doctorate. All this has an influence both on the validity of the data as well as on the composition.

In addition, there is a fundamental problem: for historical reasons, it is often not possible to ask “sensitive” questions such as questions about religious affiliation. Especially in Western Europe there are great reservations about collecting data on race and ethnicity, as this collection itself is often considered a discriminatory practice. Where it is done, the methodologies used by the different countries are very different in principle and not directly comparable. Also, registration of nationality is not always helpful, as the regulations related to obtaining citizenship are very different.

### **Focusing on internationalisation**

The reluctance — for historical reasons — toward collecting information on ethnic or even religious backgrounds makes it difficult to address this issue in the context of active recruiting policies. However, this is at least indirectly replaced by another topic, which occupies a central position in the context of doctoral education: the internationalisation of doctoral education.

According to a new Europe-wide survey on doctoral education currently undertaken by the EUA, internationalisation is among the top priorities of universities. In 74% of institutions, internationalisation is a top priority. This focus on internationalisation has been already officially addressed by the EUA's recommendations in *Doctoral Education — Taking Salzburg Forward: Implementation and Challenges* (2016). Here, internationalisation is identified as one of the three key challenges for doctoral education of the future. The paper states: “Doctoral candidates are the glue in global collaborations; they are mobile and can focus almost exclusively on their own research.” (p.7) Out of this an institutional responsibility towards international doctoral candidates is derived: “Institutions must integrate international doctoral candidates in



their research environments, value their contribution in terms of intellectual and cultural diversity, and support their development and careers in Europe or beyond.” (p.7)

### **The need for providing information and assuring funding**

There are among others two key ways for institutions to assume institutional responsibility and support the mobility that leads to this “intellectual and cultural diversity”: providing the knowledge that helps doctoral candidates to orientate themselves and offering the necessary logistical support, including the assurance of appropriate funding.

*Providing Information:* In such a highly diversified system as doctoral education in Europe, specific national, disciplinary and institutional information can be provided for all areas, from eligibility, admission, organisation of doctoral education, up to graduation. According to the already cited EUA study, 68.4% of European universities provide this information, even in a language which is not the language of the institution, in all or most of the doctoral programmes. (It should be noted that in British and Irish universities English is already the language of the institution, and we therefore can assume use of English language for informational purposes is very high). Information is not only important for organisational reasons. As recent studies show, international doctoral candidates have an increased risk for developing mental health problems (Van der Weijden et al. (2017): The mental well-being of Leiden University PhD candidates: Leiden University). It needs further research to find out what universities can do to prevent mental health problems among doctoral candidates.

*Funding:* As mentioned earlier, a key challenge is the issue of funding. Funding is key to enabling the mobility of doctoral candidates. There is a huge difference between European institutions when it comes to the funding that individual doctoral candidates can obtain. This includes monthly salaries between €350 up to €2000-3000. This significantly affects the social structure of the doctoral candidate population. Potential doctoral candidates from lower economic classes could be deterred from starting their doctorate because they are afraid they may not be able to sustain themselves. Or they could be forced to spend too much time working in order to sustain themselves financially. Funding opportunities may also have an effect on mobility. Travel and living costs abroad need to be financed – by the home or the host institution. There are dozens of different funding schemes to support the mobility of doctoral candidates, such as euraxess (see <https://euraxess.ec.europa.eu/worldwide/south-korea/50-funding-opportunities-eu-european-countries-your-mobility-cooperative>), a Europe-wide network that focuses on the support of researcher mobility and career development with the aim of enhancing scientific collaboration between Europe and the world. It gathers more than 500 service centres all over the continent. Such schemes can focus on the exchange itself or address issues such as diversity, which may also increase the quality of research. Schemes can also differ in lengths or geographic scope. While euraxess does not provide financial support, it does support the mobility of early-career researchers and their professional development on a European level. According to the EUA, relatively few institutions currently provide financial support. According to the EUA study mentioned earlier, only 33.7% European institutions provide financial or organisational aid to doctoral candidates who are interested in attending university. The huge differences in financial power between national research systems could provide one explanation why some European countries have more than 40% international doctoral candidates at universities while in others they are only a very small minority.

### **Structural diversity**

In its *Salzburg II Recommendations* (2010), the EUA stated that consideration of the individual path taken by the doctoral candidate was a key aspect for doctoral education in Europe: “(Sec-

ondly), doctoral candidates must be allowed independence and flexibility to grow and develop. Doctoral education is highly individual and by definition original. The path of progress of the individual is unique, in terms of the research project as well as in terms of the individual professional development.” (p.1) This focus on individual development is important in view of the fact that successful research can often be traced back to the independence and autonomy of the researcher. An additional consideration is that doctoral students are often in a stage of their lives where they are confronted with diverse challenges, such as starting a family or pursuing a career outside of academia. It is therefore a challenge to pragmatically adapt regulations —such as time limits — to the realities of life for doctoral candidates, and at the same time maintain and defend the principles of doctoral education as training for early-career researchers, supporting them to do excellent research. Doctoral schools can also on other levels support diversity even on a longer term: for example, mentoring systems that have been introduced in various situations can help to promote diversity and support women pursuing a career, especially in fields where they are traditionally underrepresented.

### **Summary**

To summarise: While the discourse on diversity in Europe differs significantly from that in the rest of the world, there is a strong will to make doctoral education more global and open to further sectors of society. Based on the diversity of the system itself, this will not happen with a single campaign, but rather by adapting the way doctoral education is organised to an increasingly heterogenic doctoral candidate population.

## Contemporary Research Degree Training: Preparing Diverse and Inclusive Graduates for Careers in Academia, Industry and Society

*Helen Klæbe*

**Pro Vice-Chancellor, Graduate Research and Development  
Queensland University of Technology (Australia)**

### **Introduction to QUT**

Queensland University of Technology (QUT) is located across two campuses in Brisbane, Queensland, Australia and has approximately 50,000 enrolled students, of which approximately 3,500 are higher degree by research (HDR) students. QUT is increasing its research outputs and also the percentage of international students from diverse nations in its HDR degree programs, which include PhD, MPhil, and Professional Doctorates.

The Research Students Centre, or RSC, manages and supports research students through the administrative processes associated with undertaking a research degree, including admission, enrolment, orientation, scholarships, candidature, policy and procedures and examinations. The RSC also houses Graduate Research Education and Development (GRE+D), a framework that underpins the optional learning associated with the PhD and MPhil programs. Under the GRE+D Framework, QUT research students are connected with personalised learning and development opportunities that enhance their research skills, employability, and connections with industry and innovation.

### **QUT and its diverse HDR student cohort**

Queensland University of Technology's (QUT) HDR student body is made up of approximately 30 per cent international students. QUT looks for wide diversity across its international student cohort, enrolling students from 120 countries, focused on five regions: The Americas, Europe, The United Kingdom, North Asia (including China) and South-East Asia. While most international enrolments in HDR degrees come from China, followed by India, QUT also leverages its Australian geopolitical position to reach out to diverse international student cohorts.

Projects carried out by our International Projects Unit in partnership with Australia's Department of Foreign Affairs and Trade take QUT to regions across the globe. The International Projects Unit manage small and large consultancy and training projects and have delivered a large number of training programs and consultancy services throughout Asia, the Pacific and Africa.

In our local pacific region, for example, QUT has delivered a financial management training program in Papua New Guinea, and in our local South East Asian region, we've delivered a range of capacity-building programs in the education sector with various industry partners.

QUT delivers customised training in countries to upskill citizens in regions to support and encourage further study, and any profit is reinvested into scholarships to study with us in Australia. Our scholarships are awarded on a competitive basis to the best candidates, and many are targeted to encourage applicants of diversity of gender, ethnicity, and nationality.

## **Supporting diverse student needs by building accessible, optional learning into HDR course design**

QUT's new MPhil provides a new pathway into PhD study. The opportunity to articulate from MPhil to PhD opens up doctoral study to those who haven't chosen a traditional research education trajectory through undergraduate degrees and into honours. This measure enables students from diverse backgrounds, including first-in-family researchers, and women returning to research study later in life, to find a path to doctoral study.

The Graduate Research Education and Development (GRE+D) Framework is embedded in our HDR course design. Graduate Research Education and Development curates all our optional training and industry engagement opportunities, and provides flexible training modules in research skills, leadership and communication, and engagement with industry and innovation in a range of modes, including online, face-to-face, and blended learning. The GRE+D Framework is designed to increase HDR students' transferable skills, and empower our research students to successfully articulate their skills in a competitive employment market. GRE+D provides opportunities to engage with industry and innovation, ensuring QUT research students are equipped for diverse careers both inside and beyond academia when they graduate.

Queensland is one of Australia's most regionalised states, with 25 per cent of its population of 5 million living outside the urbanised south-east region surrounding the capital Brisbane, distributed between a high number of small, regional cities (only a few of which have university campuses), rural, and remote areas. In the interests of supporting regional diversity and broadening access to research degrees among this dispersed population, QUT is working now to increase its outreach to regional and rural areas of Queensland to encouraging regional applicants to choose to study externally with us. QUT's Graduate Research Education and Development team are increasingly making training and resources available online, via a Blackboard site for HDR students in the form of downloadable resources and video content.

## **Diversity and Reconciliation at QUT**

QUT is devoted to reconciliation and growing its cohort of Aboriginal and Torres Strait Islander research students. QUT promotes a variety of scholarships and bursaries for Aboriginal and Torres Strait Islander students across all faculties and study areas. These include the QUT Indigenous Postgraduate Award, the Australian Postgraduate Award, and the Aboriginal and Torres Strait Islander PhD Scholarship. Growing our Aboriginal and Torres Strait Islander researcher cohort starts with our recruitment strategy, which sees us run information sessions for undergraduate students, work with Faculties to build on their Vacation Research Experience Scheme, hold regular HDR seminars across the university, and attend recruitment events at NAIDOC week, a nation-wide week of events, education, and celebrations of Aboriginal and Torres Strait Islander peoples.

The Indigenous Research and Engagement Unit (IREU) at QUT is committed to fostering an environment for Aboriginal and Torres Strait Islander people to share research and knowledge. Indigenous Higher Degree Research (HDR) students at QUT are supported by the IREU, who offer a culturally supportive environment that includes access to student support services, scholarships and financial support. Students also have access to activities including research seminar series, critical reading groups and Indigenous Research conferences. HDR students also have access to the National Indigenous Research & Knowledges Network (NIRAKN) and a number of virtual research student networks offered at QUT.

The IREU runs a research capacity building program tailored for current QUT Aboriginal and Torres Strait Islander research students during their candidature. The program includes:

- Indigenous Research Methodologies Masterclasses that engage postgraduates and early career researchers to reinterpret Indigenous ideas, concepts and philosophies and provide deeper context to their research
- Critical reading groups that offer Indigenous HDR students an opportunity to discuss critical works in Indigenous Studies
- Level A workshops that focus on research training by offering specific research capacity building skills designed for Indigenous PhD and MPhil postgraduates.

QUT has been building and growing its diversity on a number of fronts, and this growth is becoming more important as the university seeks to expand its research outputs and increase its HDR cohort. Fostering diversity of all kinds plays a considerable role in realising QUT's 'Real World' vision now, and in the future.

## Supporting Diversity in Graduate Education

**David G. Payne**

**Vice President and COO, Global Education  
Educational Testing Service (U.S.)**

**Alberto Acereda**

**Senior Director, Global Education  
Educational Testing Service (U.S.)**

In today's global higher education environment — filled with challenges in demographics, skills, rapidly changing employment markets and culture — graduate programs that build a truly inclusive culture are those that will outperform their peers. Diversity in graduate education benefits all: students, programs, higher education institutions and society writ large.

At nonprofit ETS, our mission is to help advance quality and equity in education by providing fair and valid assessments, research and related services. As the world's largest private educational assessment and research organization, we are committed to helping educational institutions and learners worldwide achieve their social, educational, employment and personal goals.

Through the *GRE*® and *TOEFL*® Programs, ETS has long been involved in helping graduate and professional programs achieve their missions, including and in particular the goals of recruiting and admissions. While historically the GRE and TOEFL Programs have focused on providing fair, reliable and standardized information regarding applicant's knowledge and skills relevant to success in higher education, in recent years the programs have broadened their focus.

In this paper, we review some of the primary means by which the GRE Program, in collaboration with the GRE Board, has strived to support diversity and inclusion in graduate education. The independent 18-member GRE Board is affiliated with the Association of Graduate Schools (AGS) and the Council of Graduate Schools (CGS). The GRE Board oversees GRE tests, services and research in consultation with its committees, and establishes all policies for the GRE Program, which ETS administers.

Through three standing committees — Research, Services, and Diversity, Equity and Inclusion — the GRE Board provides advice and guidance on all aspects of the GRE Program. In recent years, the GRE Board has been especially active in helping the GRE Program to offer products and services that can support diversity efforts in graduate and professional education.

Diversifying student bodies and objectively identifying academically prepared students who can succeed in graduate education requires careful consideration of all sources of information during the admissions process, and ETS has long supported this process. For example, the GRE program has for decades advocated holistic file review through the guidance provided to faculty on the appropriate use of GRE scores (e.g., consider all information in each application, do not use GRE scores in isolation of other information about the applicant).

The GRE Program also seeks to foster diversity in graduate education through the provision of products and services designed to support student and institutional success. The program offers fee reduction services for students from underrepresented populations and those who have limited financial resources. Free and low-cost test-preparation materials and services designed to help faculty who work with students preparing for the GRE tests also can help increase the

diversity of students in the graduate school pipeline. Services that help schools recruit prospective students include free publicity for program information sessions via the GRE social communities and the *GRE*® Search Service, which enables programs to identify and proactively recruit talented students who meet specific criteria important to achieving enrollment goals.

Finally, a major GRE focus in recent years has been supporting diversity and inclusion through better understanding and application of holistic file review processes. Toward these goals, the GRE Board and program have undertaken an initiative to better ensure that the graduate community has the best resources possible to support inclusive admissions practices.

Recognizing that graduate admissions in the United States is a largely decentralized process run by faculty, the GRE Program recently held interviews and discussions with faculty and staff involved in admissions at 58 programs across the United States as part of an effort to learn more about graduate admissions practices, holistic file review and the challenges facing those involved in the admissions process. We also wanted to better understand how the *GRE*® General Test and other tests are actually being used by faculty.

Armed with the knowledge gained from these interviews, as well as a review of the empirical research on graduate admissions, we have been working to curate practices that admissions committees can use to move toward a more holistic graduate admissions process. Our goals are to share these models of “promising practices,” including variants on holistic file review, in graduate admissions and to work with the graduate community.

Through our interviews with faculty and graduate leaders, we also learned that there is huge value in helping faculty have discussions regarding the goals of admissions, how admissions practices are aligned with program and institutional mission, etc. To support these discussions, we created “Connecting Graduate Admission Practices with Goals: Questions to Consider,” a discussion guide to support faculty and administrators who are interested in having the same kind of thoughtful engagement about their graduate admissions practices on their own campuses. The discussion guide covers areas such as how to prepare effectively for the admission process, key factors and their relative importance in making final selections, and evaluating the effectiveness of the admission process overall.

We have also launched a website ([holisticadmissions.org](https://holisticadmissions.org)) that provides faculty, programs and graduate schools with many useful resources designed to support diversity in graduate education through the intentional application of admissions practices that meet institutional goals. ETS has invited interested programs to add to the curated collection of promising practices on [holisticadmissions.org](https://holisticadmissions.org), so that we can all help to address the challenges and constraints of holistic admissions. We would like to make our promising practices repository as robust as possible.

Promoting and supporting a diverse student body is a pragmatic first step toward the broader social goal of inclusion — that is, organizational strategies and practices that promote meaningful social and academic interactions among students who differ in their experiences, traits and views. We know that inclusion and integration are not guaranteed by simply increasing the diversity of admitted students. Instead, inclusion and integration are descriptions of actions programs take to welcome and embrace diversity.

Continued future success in global graduate education will require focus on all areas of interaction amongst institutions, programs, faculty and students throughout the graduate student ecosystem. ETS and the GRE Program look forward to continued engagement in these critical areas of graduate education.





# 4: Creating Inclusive Programs

## Fostering Equal Opportunities in STEM Institutions

**Paolo Biscari**

Dean, Doctoral School  
Politecnico di Milano (Italy)

**Donatella Sciuto**

Executive Vice-Rector  
Politecnico di Milano (Italy)

*“When we lose the right to be different, we lose the privilege to be free.”*

-- C.E. Hughes, former Governor of New York, 1925

Guaranteeing a study and work environment that respects gender identity, disability, culture and background is a major issue in today’s HEIs. Starting 2018, Politecnico di Milano, one of the most outstanding technical universities in Europe, has launched a specific program to collect and reinforce all the strategic actions aiming at the design of a fully inclusive campus.

The *Polytechnic Equal Opportunities* program (named POP after the Italian acronym *Pari Opportunità Politecniche*) has been supported by the Rectorate with an initial investment of 500 k€. It includes five lines of action: Gender POP promotes equal gender opportunities; Multicultural POP fosters integration of different cultures, countries and religions; Multichance POP supports tailor-made services for people with diverse abilities; Pride POP enhances inclusion of LGBT+ people; Wellbeing POP offers psychological counseling support to deal with psychological wellbeing.

More complete details on POP may be found at the programme [website](#). In this short review we will restrict attention on the first line of action. Dealing with gender issues is a key task to warrant equal opportunities to women in all sectors of society, but it is indeed one of the key, strategic tasks faced by HEIs working in STEM areas.

As a first task, we thoroughly analyzed the present situation by collecting a series of data, then collected in the 1st Diversity Data Report (available on the internet at [this link](#)). The study highlighted a series of problems that deserve to be tackled and solved. Among these we underline the following.

### Entry data

- The Gender Gap very clearly emerges already from the entrance data: only 37% of our incoming students are female, and the percentage drops to less than 28% if we restrict attention to the Engineering courses.
- The average high-school mark of incoming female students is significantly higher than the equivalent mark of their male colleagues (+5,4% in average marks in 2017, and similar data also for 2016 and 2015).
- In three courses (Mechanical Engineering, Electrical Engineering and Information Technology) the female entry ratio is even below 10%.

The collected data suggest the existence of a sort of (individual, family- or environment-induced) self-selection effect, such that female candidates apply to Politecnico di Milano only if they overcome an expected performance threshold higher than the male candidates’ expectation.

### **Performance data**

Male and female students have similar drop-out rates. On the contrary, the average performance of female students is significantly higher than their male counterpart. At the final exam of the Bachelor level, female students keep an average mark higher than their male class-mates (+3,6%). The data are still confirmed at the Master level with a +2,1% average difference for the female students.

### **Occupational data**

We have also monitored the occupational data of our alumni 12 and 24 months after graduation.

Despite all the preceding data suggest that our female graduates are substantially similar to (or, in case, better than) their male class-mates, the occupational data reveal an impressive gender gap.

- True that most Politecnico graduates succeed in finding a job after graduation, but the success rate is 94,8% for male graduates versus the 90,5% for female graduates.
- Out of the graduates that found a job, 51,8% of male graduates were offered a permanent job, versus only the 37,7% of female graduates.
- There is also a significant first-salary gap. Female candidates earn a salary which is 16,6% lower than the male first-salary.

### **Present and future actions**

Overturing the situation above is neither an easy nor a short-term task. Indeed, on the one hand we need to convince our female candidates (and, presumably, their families and/or high school teachers as well) that choosing a STEM College is by no means more indicated for male candidates. On the other hand, we have to do our best to convince all employers that the quality of our female graduates is similar if not greater than the quality of their male classmates.

To this aim, the first actions we have already undertaken in our Gender POP programme are the following:

- Established a one -week summer camp at Politecnico on programming and robotics for high-school students. In this programme Politecnico awarded 20 scholarships to female students to attend (TECH CAMP).
- Start a course on storytelling techniques for PhD candidates to enable them to become role models and be more effective at talking about their choices and research in schools and at promotional events for STEM professions. Politecnico di Milano participates to the national InspiringGirls program ([www.inspiring-girls.it](http://www.inspiring-girls.it)) that brings female role models in different professions to middle schools to talk to students.
- Provide financial support for female faculty members who decide to return to research work immediately after maternity leave.
- Provide free nursery service at Politecnico di Milano for PhD candidates with children.
- Establish a Women Mentoring Programme in collaboration with external companies to prepare female students to their future working life in the private and public sectors. This service will be offered by the Assessment Center of the university's Career Service starting next academic year.

## Preparing Graduate Students for Their Next Career

*Freddy Boey*

**Senior Vice President, Graduate Studies & Research Translation  
National University of Singapore**

Graduate students today comprise a sizable proportion of the whole student cohort of any given university, whether they are embarking on coursework-based or research-based programs. Too frequently, talk of preparing graduates for a successful career pertains mostly to undergraduates, rather than graduate students. This neglect includes issues of assimilation when they arrive, their ongoing academic and personal wellbeing during their program, and preparing them for their next career.

At the National University, of the total 38,000 total student population, more than 11,000 are graduate students. Of these, more than 4000 are full time research students doing substantial research. Unique to graduate students is also the fact that they are by self-selection into the programs they embark, a very high-quality pool of students.

Traditionally, particularly for research based graduate students in STEM areas, the focus has been to prepare them for an academic or research career whether as tenurable professors, postdoctorals, research fellows etc. The focus is then to do evidence based but curiosity driven research, with the desired out come in the form of top quality / high impact research papers and conference presentations.

Given the global trends of diminishing blue sky research funds and an increasing dearth of tenurable professors' positions, graduate students today are more likely than not to eventually take jobs with no direct usage of their specific skillsets.

National University Singapore has recently placed better attention to preparing her graduate students inclusively for their next career:

- First is the introduction of core Innovation & Enterprise Courses for all graduate students
- Secondly, more incentives are given for graduate students to embark on inter-disciplinary research programs and also programs that addresses unmet needs in industry or society. While the pursuit of curiosity driven research that are deemed 'blue sky' will not be discouraged, incrementally, incentives are increasingly given for research that can be translated into societal or economic impact.
- Thirdly, building a culture of 'Research Translation' – disclosing, filing and licensing of Intellectual Property, encouraging startup companies etc. This will help graduate students to consider a career in entrepreneurship that can put their specialized expertise for societal and economic impact.

The explosion of the so called “Innovation 4.0” technology and “Deep Technology” are both seen as a strong opportunity towards this direction. Innovation 4.0 refers to the disruption in industry caused by the use of Digital Platforms, much like steam power (1.0), electricity (2.0) and microelectronics (3.0) have done. Deep Technology refers to the technological capabilities that have evolved as a result of substantial research effort that typically has led to the filing of Intellectual Property.

For today’s graduate students, this disruptive change can be seen as both a threat and an opportunity. Innovation 4.0 requires deep technology, but also one that embrace interdisciplinarity. Graduate students can exploit this disruption by cleverly acquire new Digital skills to prepare and even propel them towards a future dominated by I4.0, regardless of the area of their future career. As every country aspires towards a value creation model for their economic growth, graduate students are actually best poised as the central figure in valuation creation, as the innovator.

To build a strong culture of Innovation among the university’s graduate students, NUS has now introduced a new award program called “Graduate Research Innovation Program”, GRIP. GRIP awards S\$100,000 to every team of graduate students who comes with an innovation business model as an investment to helping them create their startup company. Students are strongly encouraged to team up with students from other disciplines. They are provided with an intensive Venture Creation training program which helps them to understand the basics of IP management, writing a business model for a startup company, investment practices etc. In the inaugural launch, NUS awarded 21 teams with this GRIP awards. The Program aims to create 250 startups, all founded by graduate students, in the next 5 years.

## Facing Diversity and Promoting Students Individually

**Klaus Mühlhahn**

**Vice President**

**Freie Universität Berlin (Germany)**

The guiding principles that have defined the academic ethos of Freie Universität Berlin<sup>1</sup> (FUB) are the Latin words *veritas*, *justitia*, and *libertas*, which also frame the university's seal since its foundation 70 years ago, in December 1948.

Based on these overarching principles, Freie Universität lays out in its “Mission Statement Diversity”<sup>2</sup> that its canon of values includes “equal participation of university members regardless of age, disability or health impairment, gender and sexual orientation, social background and social/family status, nationality, ethnicity, religion, and worldview.” We claim that “out of our personal obligation, social responsibility, and exemplary function as a public institution in society, our actions are guided by the objective of a teaching, learning, and working environment free of barriers and discrimination, and of a valued collaboration with all status groups in the aim of self-critically identifying and eliminating mechanisms of exclusion and creating opportunities for integration.”

Promoting and developing forms of teaching that achieve these results require not only a well-funded theoretical background of the teachers but also their ability of (self-)reflection.

Three projects Freie Universität is hosting may serve as examples for how we foster this aim:

- The project “K2teach - Know how to teach” addresses students who are planning to become school teachers. The aim of the project is to support the acquisition of competences for adaptive teaching practice in heterogeneous classrooms. The students acquire, for example, basic competencies of test diagnostics for dealing with heterogeneity.
- The website “Toolbox Gender and Diversity in Teaching” is open for academic teachers of any subject and offers support for preparing and planning gender- and diversity conscious lessons, along with plenty of ideas, information and resources to expand on the knowledge in the subject.
- The project “Support for Teaching” promotes a learner-centered approach to university didactics and considers teaching as guided by individual needs and situations accepting students with their individual strengths and weaknesses. The workshops, dealing for example with the “Diversity of Learning Requirements”, are designed especially for young scientists but there are also offers for experienced professors to facilitate innovative teaching projects.

Gender and diversity aspects are part of the criteria, which are reflected when we develop new BA or MA programs. How gender and diversity competence is acquainted in the degree programmes is an integral part in the module descriptions. Of course, depending on the subject, the integration of gender and diversity aspects in teaching and study may differ but with the introduction of new and the revision of already existing courses of study, there are numerous possibilities to integrate gender and diversity aspects. These range from integration into qualification goals and educational content to independent thematic courses.

Examples are the MA program “Gender, Intersectionality and Politics” starting October 2019, which is focussing on gender research based on political science and the Gender and Diversity competence modules as a part of general vocational preparation in BA programs, which are frequented by students from all disciplines. A selection of classes (which took place in summer semester 2017) illustrate how

<sup>1</sup> English translation: Free University Berlin

<sup>2</sup> <https://www.fu-berlin.de/universitaet/profil/gesellschaft/diversity/index.html>, Original in German.

aspects of gender, diversity and queer studies are reflected in various disciplines: Eastern Europe postcolonial; Passion, Power – Sexualities in U.S. History after 1865; Federalism and Diversity: The Canadian Federation in Comparative Perspective; Migration, Gender and Ethnicity in Latin America; Human Rights Protection and Sexual Orientation in International Law; Between liberalism and repression – sexual policy and sexuality(s) from the Weimar Republic to the post-war period; Colonial history and global learning in history teaching Gender, Diversity and Sexual Diversity in subject teaching; Queer Cinema: Theories and Perspectives; Physics in Context: Post/Colonial Histories and Diversity Management.

According with the law of the state of Berlin, FUB, like every other public tertiary institution is obliged to accept all prospective qualified applicants<sup>3</sup> as students and to enable students with disabilities or illnesses to integrate in every existing study program successfully by compensating existing disadvantages. The university has to ensure that the appropriate spatial prerequisites exist or will be created and the student can apply for technical facilities or a student assistant within the context of integration help.

- FUB addresses the aim to compensate existing disadvantages by several services not exclusively for (prospective) students with disabilities or illnesses:
- Student Services Center including welcome services for students from abroad but also psychological support for every student.
- Distributed Campus“– an online platform developed in cooperation with the DAAD – supporting international students.
- Detailed information for students with disabilities on the websites of Freie Universität Berlin (advice, financing, mobility etc.)
- One gender equality officer in each department since the 1980s. Their involvement in all hiring and appointment processes is required, and they promote research into women’s studies and gender studies within the individual disciplines while also serving as counsellors (in matters such as sexual harassment, discrimination, and stalking).
- Financed by the state of Berlin, special support measures for students with heterogeneous school and training biographies have been developed (duration 2016-2020), e.g. Mentoring programs, workshops on scientific working, special information offers.
- Welcome@FUBerlin is an extensive package of academic offerings and services aimed at making it easier for people who have had to leave their homeland to gain access to study programs.
- MINToring: insights into physics and computer science for girls starting from 7th grade; including internships and workshops.

In addition, the faculties arrange individual study plans with students, who are not able to follow the general study plan for example due to disability or illness but also due to family burdens. This may include deadline extensions, substituting an exam with an equivalent performance and/or additional breaks. Another possibility are part-time studies, for which students can apply for serious reasons. Compensating existing disadvantages is also the core of hardship case regulations addressing admission, terminating study programs, etc.

Diversity-related aspects and topics are crucial parts of the quality assurance of Freie Universität Berlin. The quality assurance for study and teaching includes quality reports, in which the departments regularly provide analyses on questions of academic success, student mobility, study program development, etc., and evaluate them in a joint dialogue with the executive board and the department of teaching and student affairs.

<sup>3</sup> Owing a student entrance certificate and, in admission restricted programs, competing successfully with their qualification.

## Towards an Inclusive Education at Eduardo Mondlane University, Mozambique

*Orlando António Quilambo*

Vice Chancellor

Eduardo Mondlane University (Mozambique)

*Aidate Mussagy*

Assistant Professor & Editor in Chief of the Scientific Journal

Eduardo Mondlane University (Mozambique)

The Eduardo Mondlane University (EMU), first named General studies of Mozambique and then University of Lourenço Marques, was established in 1962 as part of the expansion of the higher education system to the Portuguese colonies. The main aim then was to train an elite which could fulfil the colonial goals in Mozambique. After the 1975 independence of Mozambique there was a massive exodus of the Portuguese colonialists who left the country with very limited capacity. The country had only 40 black national higher education students, representing less than 2% of the overall number of students at the Universidade de Lourenço Marques (ULM).

With this situation the Universidade Eduardo Mondlane (UEM) had to find a way to continue as a university, as well as a national and democratic university in an emerging country, providing education in an equitable basis for all Mozambicans.

### **UEM and its new Vision and Mission**

For many years, the postgraduate training of UEM academic staff was undertaken in other countries due to lack of local capacity. Through bilateral and multilateral agreements, the country sent thousands of Mozambicans to be trained abroad.

Currently, UEM represents by far the national higher education institution with more accumulated capacity in terms of research and training staff. Over 20% of the academic staff of UEM hold a doctoral degree. In 2013, the UEM adopted a new vision and mission for the institution. The new vision and mission aim at transforming UEM from being a teaching-intensive University into a more research-intensive university.

### **Inclusive programs at UEM**

The EMU Strategic plan has made clear statements towards the need to provide a supportive and inclusive learning education that will offer the widest opportunities to a diverse range of Mozambican students. This inclusive approach does not focus on specific target group but rather based on making EMU accessible for national and non-national students with different backgrounds, experience, cultural capital, age, disabilities, gender and other aspects.

In this paper we will synthesize the experience of EMU in the implementation of inclusive educational programs and we present some dimensions of how EMU is implementing inclusive educational programme.

EMU has been engaged in a selection comprehensive mechanism and recruitment process in order to create a larger presence of students from different parts of the country, sometimes



academically under prepared compared to those from the urban areas. This approach has resulted in greater student diversity. To ensure national and gender representation to enter the university a 2.5 % quota is reserved for each province and from that another 2.5 % for female students; this a measure allows for all round coverage of girls and representatives of all provinces at the graduate level.

On the other hand, for successful and quality training support curricula programs, we have set out to enhance students' academic skills. This may last for a Semester according to each case. Due to a low intake at the EMU we do offer distance learning graduate courses to provide graduate training to many Mozambicans. Such approach to inclusivity constitutes a big challenge to the university to develop adequate curricula and pedagogy to guarantee students success and quality, to increase their technological capacity to expand distance education, to train teachers with appropriate pedagogy to upskilling for distance education and production of digital educations materials to guarantee curricula efficiency and quality. Through distance learning curricula access to EMU increased in the last years.

EMU core values promote equality of opportunity between different groups. The provision of education for students with disabilities has been part of the educational process. The EMU University Council approved in 2017 the strategy for inclusive education system for students with special education needs and further the administration services to follow and help the students with special education needs. In these aspects a special unit was established in the Central Library to assist students with special adaptive aids that provide students who are visually impaired with the opportunity to learn and ensure that they can follow the curricula in the enrolled courses.

Apart of this initiatives we are aware that many more steps must be taken to transform the curricula organization based more on traditionally lecture hall settings to a more personalized oriented curricula based on the principle of student centred- learning and to the development of fundamental skills.

Inclusive education is a challenging issue for EMU. The Department of staff Development established at EMU, apart of their responsibility to train teachers, has the mission to identify gaps for the present situation, and reflect upon and review the inclusive educational programme in order to promote a more inclusive curricula and pedagogical teaching and learning environment.

The EMU fundamental goal patent in the previous strategic plan and the current one so to say has been to provide high quality, relevant and widely accessible higher education. The few above given examples show that EMU has been engaged to achieving inclusive education but these goals have not yet been fully reached. And a new approach is needed to make possible, consolidate and advance to a more inclusive educational training and to create an environment that encourages and supports all students to actively engage successfully at the EMU.

## Mission-Based Approaches to Inclusive Pedagogy

**Christopher Sindt**  
Provost and Dean of the Graduate School  
Lewis University (U.S.)

Strengthening approaches to diversity, equity and inclusion in graduate education is a key component to the cultural and economic vitality of our global community. A commitment to diversity is a commitment to the basic principles that underpin research and scholarship: the development of conditions that support creativity, innovation, and discovery through teamwork and collaboration. As the 2009 CGS publication, *Broadening Participation in Graduate Education*, states: “diversity is an asset—an enabler that makes teams creative, solutions more feasible, and citizens more knowledgeable.” (11)

I have recently transitioned from serving as the graduate dean at Saint Mary’s College of California to serving as the provost and dean of the graduate school at Lewis University. This paper includes observations and examples from both institutions.

Both Saint Mary’s and Lewis ground their approaches to diversity and equity in the Catholic intellectual tradition, Catholic social teaching, and the founding order of both institutions, the Brothers of the Christian Schools, known as the “Lasallian” tradition. These traditions emphasize human dignity, social justice and the common good, and an emphasis on engaging with communities impacted by poverty. The worldwide Lasallian network of universities, which includes 65 universities from 33 countries, has agreed on an international research agenda that focuses on education, environmental sustainability, and health. This grounding in the educational mission and the global network of research collaboration provides a context for intercultural collaboration among faculty, and for curricular decisions at the degree level that emphasize global learning and cultural competence.

Both Saint Mary’s and Lewis have graduate institutional learning outcomes. At Saint Mary’s these outcomes at the master’s level include a general category of learning—required of all master’s students—called “Engaging the World,” which focuses on the ability of the students “to reflect deeply on their place in our diverse culture and to approach, analyze and engage with the diverse global culture in which they live and work as scholars, professionals and citizens.” It includes specific outcomes on the common good and global competency, and specifically addresses diversity with two outcomes: 1) The student “engages in self-reflection and cultivates self-understanding in the context of personal and global diversity”; and 2) the student “investigates and analyzes issues that arise from the diversity of experience in areas such as (but not limited to) race, ethnicity, culture, gender, religion, sexual orientation, abilities/disabilities, and politics.”

Complementing this curricular approach, both institutions employ a range of tactics that form the foundation of an approach to diversity and inclusion: sophisticated practices for hiring faculty of color; mentoring programs where students are supported by a network of alumni, faculty, and peers; and recruitment and enrollment practices that value diversity and building graduate pathways. For example, Lewis has developed the Summer Undergraduate Research Experience (SURE), which provides funding and materials for 15 faculty-student summer research projects in STEM disciplines. This program also brings the students together weekly to

discuss topics, such as research ethics, data analysis methods, resume building and interviewing skills. SURE targets students from marginalized communities and trains faculty mentors in cultural competency.

Traditional approaches to graduate pedagogy—small seminars and tutorial or mentor-based research—are aligned with mission-based approaches that treat students as a whole persons requiring individuated instruction. In this context, professors have opportunities to respond to the cultural assets a student brings to a project, and to adapt pedagogy to the student’s learning style. Still, there is less evidence that inclusive pedagogies have taken hold. Both institutions require foundational training in cultural competency for employees and researchers, and at Saint Mary’s, we developed a training specifically for professors that emphasized issues of diversity and equity arising in classroom and laboratory settings. At both universities, the primary locus of innovation in pedagogy is a center for teaching and learning, which provides programming on inclusive pedagogies in support of learning in diverse populations—from inclusive dialogue to the use of new technologies. This technique tends to promote innovation and excellence in pedagogy for a relatively small, self-selecting cadre of professors, but it is not comprehensive.

Both Lewis and Saint Mary’s have rich traditions of inflecting graduate programming to emphasize the mission-based approach to diversity and inclusion. This approach may emphasize ethical approaches, experiential learning, and community-based research, which is now the norm for master’s and professional doctorates at these institutions. This approach requires that students work in community, understand intellectual problems in the context of the lives and challenges of marginalized communities, and practice research in response to specific needs.

For example, Saint Mary’s Global MBA program integrates the study of management with real-world global experience and focuses on sustainable management knowledge while providing tangible assistance to organizations and governments around the world. The values of diversity and inclusion are infused in the curriculum and students have a required course called “Interfaith Leadership, Ethics, and Corporate Governance in Global Business.” The students’ research projects connect students with NGOs with the goal to elevate the quality of life and livelihoods in a developing country with the goal of reducing, and ultimately eliminating, world poverty. The common thread in these types of graduate programs, and in any successful approach to diversity and inclusion, is an inclusive pedagogy that values the backgrounds and learning styles of its graduate students, and honors the unique challenges of organizations and communities.



# **5: Supporting Retention and Completion of Underrepresented Students**

## “More than Good Intentions”: Supporting Indigenous Graduate Students at the University of Toronto, Canada

*Luc De Nil*

**Acting Vice-Provost, Graduate Research and Education and  
Acting Dean, School of Graduate Studies  
University of Toronto (Canada)**

In February 2018, the Indigenous Education Network (IEN), a group of students, faculty and community members united in their passion for Indigenous Education, held their first summit on the topic of mentoring Indigenous graduate students at the University of Toronto, in part in response to the findings of the Truth and Reconciliation Commission (2008-15) and the Universities response to the Calls to Action. The notion that “meaningful mentoring requires much more than good intentions” lay at the heart of the IEN’s day-long symposium, which invited Indigenous and non-Indigenous university staff, students, and faculty together for talks, panels, and group discussions. It is evident that transforming good intentions into actionable initiatives, and implementing real changes, requires institution-wide cooperation, resources, and the creation of mechanisms to track and evaluate success. In this presentation, I will outline the multi-pronged approach that has, to date, been taken to support and retain Indigenous graduate students at the University of Toronto. We recognize that these are first steps in an ongoing effort to make the University a place where Indigenous students and faculty feel welcome and meet both their academic and personal goals.

The University of Toronto has just over 90,000 students of whom 19,187 are pursuing graduate studies. Our population of Indigenous students is small but growing. We estimate, based on self-report survey data, that close to 400 (2%) of our graduate students identify as Indigenous. Because we consider the diversity in the student body a tremendous strength for our academic community, our university is actively ramping up recruitment of indigenous students and faculty. At the same time, we want to make sure that the appropriate support services are in place. With that in mind, the University has initiated and/or supported a number of important initiatives over the years.

Recognizing the need for initiatives that support the reconciliation between the University and Indigenous people and communities, the University of Toronto in 2017 appointed a Director of Indigenous Initiatives, Jonathan Hamilton-Diabo, whose mandate is to engage Indigenous people in and outside of the University in the mission of the University, broadly intersecting with such areas as teaching and learning, student experience, faculty and staff recruitment and engagement, and community-based research.

The University also has established First Nations House, which offers culturally supportive academic advising for undergraduate and graduate students on all three campuses at our university. Services include an Indigenous learning strategist offering in person support and workshops, and financial advising. First Nations House also provides the opportunity to meet with Elders and Traditional Teachers for support, guidance and teachings. We are exploring the possibility to provide access to Elders/Knowledge Keepers through the School of Graduate Studies. This would be consistent with our overall goal of making services for graduate students more accessible, similar to our current model of hosting an embedded Academic Accessibility advisor as well as Wellness counsellors.

Last April, as Acting Dean of the School of Graduate Studies, I had the honour of participating in a graduate ceremony at the First Nations House. Coverage of the ceremony was included in our monthly newsletter to all graduate students. What may seem like a “small scale” initiative is actually part of a very important goal for us: recognizing and advertising the achievements of Indigenous graduate students within our community, and thereby helping to establish role models for future and current students.

Through the Centre for Indigenous Studies, a graduate student-led group SAGE UT (Supporting Aboriginal Graduate Enhancement, University of Toronto) works toward the recruitment, retention and completion of specifically First Nations (status/non-status), Inuit, Métis and other Indigenous scholars at U of T. This is carried out by ensuring safe spaces for graduate students to share knowledge and ideas, and support one another throughout the graduate student experience. For the last three years, the School of Graduate Studies has partnered with SAGE to provide travel bursaries that help Indigenous students attend conferences and events that support them in Indigenous learning and in maintaining ties to Indigenous communities here and outside Canada. The Indigenous Education Network (IEN) and the Deepening Knowledge Project (DKP), which seeks to infuse Aboriginal peoples’ histories, knowledges and pedagogies into all levels of education in Canada, also organize a Welcome and Information Fair for new, returning and potential students.

Another initiative addresses the tuition cost barrier for Indigenous students. In collaboration with the Factor-Inwentash Faculty of Social Work and Faculty of Arts and Science, the School of Graduate Studies provides support for international tuition relief for US Indigenous students enrolled in Master’s programs in these faculties. We also are initiating a pilot project to provide financial support to postdoctoral fellows from underrepresented groups, with a specific focus on Indigenous and Black researchers.

Starting this fall, we will provide a new resource that is designed to assist graduate students in the Master of Social Work in Indigenous Trauma and Resiliency (MSW-ITR). Called gradOUTline, this resource helps students to understand the progression of their program requirements and to know what support resources are there to help them every step of the way. The resource has the added benefit of promoting the MSW-ITR to prospective students and to provide the framework of indigeneity upon which the field of study is structured. We will track and evaluate the success of this initiative through the Faculty of Social Work.

In addition, faculties organize their own support services, such as the Indigenous Law Students’ Association, the Office of Indigenous Medical Education, the Universities Native Student Association, and the Indigenous Studies Student Union, which for the last two years has organized an annual Honouring Our Students Pow Wow. Each year, the University organizes an Indigenous Education Week, a weeklong series of events that highlight the contributions Indigenous knowledge has made to education. These events, such as roundtables, craft workshops and film screening, are a chance for students, staff, faculty and the community to participate in and learn about diverse Indigenous cultures, both local and global.

In summary, the School of Graduate Studies and University of Toronto recognize the importance of transforming good intentions into real actions in order to support Indigenous students through their graduate journey. Creating resources that underline support and clarify means of academic success, and providing appropriate mentoring opportunities will continue to be our priorities and those we build upon in the years ahead.

# Increasing the Representation of Female and Students from Disadvantaged Backgrounds: Case Studies of UKZN and UR

*Nelson Ijumba*

**Deputy Vice Chancellor, Academic Affairs & Research  
University of Rwanda**

## 1. BACKGROUND

The quest for postgraduate education has been fuelled by enhanced job prospects normally associated with acquisition of a postgraduate qualification. In many African countries, postgraduate education was acquired abroad following scholarships awarded by organizations such as the British Council, Fulbright Scholarships, DAAD, NORAD, NUFFIC and Sida (formerly SAREC). This was because local universities did not have the capacity to offer postgraduate qualifications. Most of the people who went to train abroad were part of the Universities' staff development programmes. They were meant to come back and contribute to the institutions' capacity in developing local postgraduate programmes. Few of the people who went for postgraduate training came from Government Ministries and parastatal organizations where there was a need for specialists in specific areas. The majority of them went for Masters degree qualifications or postgraduate diplomas. Invariably, those who were chosen to go for postgraduate training abroad were people who had excelled in their undergraduate training. Competition was stiff because of limited chances and so only the best could go.

## 2. EMERGENCE OF DISPARITIES

When Universities began offering postgraduate degrees locally, it meant that more students could be enrolled. By then the need for such qualifications in the society had also increased. Those who performed excellently continued to access, but there were others who wanted to access but were unable to because they did not meet the entry requirements. An analysis of those who could not access showed that they were mainly those who were disadvantaged at entry into UG programmes or even earlier. For example there were very few women qualifying for entry into STEM based postgraduate programmes. In South Africa, Blacks and especially Africans, were unrepresented in many of the postgraduate programmes. This is because of their unpreparedness for University entry emanating from the poor primary and secondary education. They were then enrolled in institutions that did not have effective bridging and academic support programmes to enable them to attain their potential in UG training. Inevitably, students from such backgrounds did not meet the requirements for entry into postgraduate programmes (usually an honours degree with first or upper second class). There was another dynamic which reduced the number of qualifying Africans enrolling in postgraduate programmes. A number of them were first generation university graduates and it was expected by their families that on completion of their studies, they get a job, earn a salary and support the family, including paying for the education of their siblings. Others who could have been recruited as part of the staff Universities' staff development programmes, preferred to go and work in public and private sector or government, which paid better than academia. In many countries as well, fewer women go for postgraduate studies because of commitments to raising families.

## 3. ADDRESSING THE DISPARITIES (UKZN CASE STUDY)

### *3.1. Alternative entry requirements*

Applicants from disadvantaged groups in terms of race and gender who demonstrated potential to undertake PG studies were considered for admission under the condition of recognition of prior learning through relevant work experience. For example if, after graduation, they worked in an area that was relevant to what they wanted to study or acquired an additional relevant



qualification, the experience or qualification counted towards the shortfall in the normal entry requirements. In the case of engineering programmes, admission was also given to students who had graduated with B Tech degrees from Technikons (or Universities of Technology in SA) under the same condition. They needed to have graduated at a higher level and also worked in a relevant industry for a minimum period.

### *3.2. Conditional admission*

In some cases, students who did not meet the minimum requirements were admitted conditional to attaining a minimum score in identified courses, which were considered critical building blocks to the programme they were admitted into. In engineering, these were courses such as advanced mathematics as well as modelling and simulation.

### *3.3. Academic support*

Some of the PG students who were admitted under the conditions indicated above needed mentorship in addition to academic supervision. The academic guidance was in the area of how best to access e-resources through the resource centre, how to write conference and journal papers, how to prepare seminar and conference presentations. In the other areas students were mentored on how to prepare for travels abroad where they had to go for conference presentations.

## **4. EXPERIENCE AT THE UNIVERSITY OF RWANDA (UR)**

At the UR there are mainly two categories of unrepresented postgraduate students, namely female and international students. Out of a total of about 1611 postgraduate students, 29% are female. The proportion of international postgraduate students is about (8%). Nearly 20% of the postgraduate students are registered in the six regional centres of excellence, based at UR. In the CoEs alone, the proportion of female students is about 33% and that of international students is about 34%.

A number of initiatives are being implemented to increase the representation of female as well as international students in postgraduate programmes. For the CoEs, enrolment of international and female students is among their KPIs. For those funded by the World Bank these indicators are disbursement linked (i.e. DLIs). The centres have a stipend for international students. Based on their regional mandate, they offer programmes, which are not available in the neighbouring countries. This leads to them attracting students from there. Such students are also given preference when it comes to university accommodation. For the female students, in addition to preferential treatment in allocation of accommodation, their stipend rates are higher. In order to encourage female academic staff members to undertake PG programmes, a donor funded project was introduced in which female academics were allowed to with their families abroad for PhD studies. In order to improve the quality of assignments that the postgraduate students produce, all the students are required to undergo English proficiency testing. Those who are identified as needing help are given support through the Centre for Language Enhancement. The Centre also offers the Academic and Scientific Writing course, which is now mandatory for all PG students.

## **5. CONCLUSION**

In the two cases considered, there was a need to improve the representation into postgraduate programmes certain sections of the society. In the case of South those who were previously excluded it was because of a social political reasons. In many cases alternative mechanisms had to be used and academic support programmes introduced to enable them to succeed. In the case of Rwanda, it is female and international students who are underrepresented. The female factor is mainly social whereas the case of international students is because the institution is fairly new. The majority of international students come from neighbouring countries. Through donor funded initiatives, it has been possible to attract more international and female students in specific programmes. Academic support is mainly required in English proficiency and academic writing.

## “There Is No Need to Reinvent the Wheel--We Have Best Practices for the Retention of Underrepresented Students: Duke University’s Experience”

**Paula McClain**

**Dean of The Graduate School and  
Vice Provost for Graduate Education  
Duke University (U.S.)**

Many universities struggle with the question of how to recruit and retain underrepresented students in graduate education. Those struggling with these issues often make an assumption that we have to develop these strategies from scratch. But this is not the case. In 1992, The Council of Graduate Schools published a report, “Enhancing the Minority Presence in Graduate Education IV: Models and Resources for Minority Student Recruitment and Retention,” that provided a number of strategies for the successful recruitment, retention and completion of underrepresented minorities in graduate education.<sup>1</sup> The Graduate School (TGS) at Duke University is fortunate to have the author of the report, Dr. Jacqueline Looney, as our Senior Associate Dean for Graduate Programs in our school, and we have developed our programs based on the strategies suggested in that 1992 report. For those of us in The Graduate School, this report might be viewed as the beginning of the development of “best practices” for recruitment and retention of underrepresented students.

The 1992 report identified twenty-four strategies that institutions could use to help with the recruitment and retention of underrepresented students that they have admitted. While space does not allow for me to list all twenty-four, but there are several that stand out—financial support, mentoring, regular follow-up meetings, supportive environment, annual social events, and emergency support. (The twenty-four strategies are listed in Appendix A.) We do much, much more, but I will focus on these and how The Graduate School at Duke University has adopted these strategies.

**Financial support**—TGS has fellowships for students that bring diversity defined broadly to various degree programs. So, women in Computer Science, men in Nursing, and underrepresented students in many disciplines—the Dean’s Graduate Fellowship (DGF). The DGFs provide a 12-month stipend during the first two years of Ph.D. study of \$34,000. A \$5,500 summer stipend or stipend supplement in years three and four when they revert to the normal nine-month stipend. In fall 2018, we have 13 awardees in the following programs: Sociology, Statistics, Cell and Molecular Biology, Art History, Pathology, Materials Science and Engineering, English, Biology, Public Policy Studies, Psychology and Neuroscience, and Economics. TGS also offers domestic and international conference travel, and domestic and international dissertation research travel funds, among other types of research support.

**Mentoring**—TGS is striving to “Cultivate a Culture of Mentoring.” To this end, a Mentoring Toolkit has been developed based on years of data collected from Duke faculty and students. The aim of the toolkit is to provide resources to conduct successful workshops on good practices for mentoring students. Faculty or graduate students wanting a toolkit can download it

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<sup>1</sup> “Enhancing the Minority Presence in Graduate Education IV: Models and Resources for Minority Student Recruitment and Retention,” published by the Council of Graduate Schools in 1992, authored by Jacqueline Looney, Senior Associate Dean and Associate Vice Provost. <https://eric.ed.gov/?id=ED356696>.

from TGS website and are encouraged to conduct a workshop and provide TGS with feedback. Duke students receive Responsible Conduct of Research (RCR) credit by participating in a mentoring workshop. This has also facilitated conversations in departments (e.g. the immunology PhD program is using the toolkit in its fall retreat with students and faculty). We also have designed “[Cultivating a Culture of Mentoring](#)” website with resources for mentors. TGS also has an annual Dean’s Award for Excellence in Mentoring for both faculty and graduate students.

**Regular Follow-up meetings**--TGS’s Graduate Student Affairs division facilitates group discussions with underrepresented students to check in on their well-being overall. These discussions have been critical to identifying issues the students might have that are related to their feelings about Duke, their program and their interaction with their peers. TGS has also developed an ongoing video series of graduate students in what we call “I Knew I Belonged at Duke when . . .” These vignettes have students sharing their personal, positive Duke experiences and giving advice for peers and prospective students for success.

**Supportive Environment**—TGS is intentional in its focus on students’ well-being and mental health. Duke has a Wellness Center and TGS hosts and open house for graduate students to explore all of the amenities and support available. TGS also has a very close working relationships with the Counseling and Psychological Services (CAPS) and lets students know of the counseling and other services available. We also work to reduce the stigma associated with using CAPS services. In several of the STEM disciplines, we have recruited Faculty Champions to advocate for students and to check in on them periodically. Faculty Champions also take the students out for lunch or dinner in a relaxed environment to check in on them. TGS also supports a number of graduate student groups—GradParents, Women in Science and Engineering, Black Graduate and Professional Student Association, the Bouchet Society, the Hurston James Society and a number of others.<sup>2</sup>

**Annual Social Events**—In the fall of every academic year, TGS has a reception for Students and Faculty of Color. This draws faculty, staff and students from across campus, and puts students in touch with other students in disciplines other than their own. TGS also hosts an LG-BTQ and Allies reception every fall as well. This event attracts a number of underrepresented students that are either LGBTQ or allies.

**Emergency Support**—TGS has an emergency loan program with a maximum loan amount of \$1,000 with a 3 percent interest rate. TGS has partnered with the Graduate and Professional Student Council in support of a Community Pantry. Food insecurity is becoming more of an issue of Ph.D. students with families and many master’s students, particularly international students. TGS also has a Medical Expense and Hardship Assistance Program. Ph.D. students can apply for grants up to \$5,000 to cover out-of-pocket medical expenses for themselves. It also covers expenses that are not eligible for reimbursement and that create a significant financial hardship for the student. A Childcare Subsidy of up to \$5,000 per year is available to Ph.D. students for up to three years. More than a third of the students who apply for and receive the childcare subsidy are international students.

These are just a sample of the types of activities that TGS at Duke University does that have been successful in retaining and graduating underrepresented students. Recruitment and retention of underrepresented students at TGS at Duke University is one of our top priorities.

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<sup>2</sup> Rankin, S. R. & Reason, R. D. (2005). Differing Perceptions: How Students of Color and White Students Perceive Campus Climate for Underrepresented Groups. *Journal of College Student Development* 46(1), 43-61. Johns Hopkins University Press. <https://muse.jhu.edu/article/177605/summary>

Although the focus is on underrepresented students, it is important to know that many of these support services are offered to the entire graduate student population. That way, no one group is singled out, and it helps us to do a better job integrating all students successfully in the graduate student and wider Duke community.

## Appendix A

Retention Activities from “Enhancing the Minority Presence in Graduate Education IV: Models and Resources for Minority Student Recruitment and Retention,”

1. Student Follow-up
2. Summer letters to new and returning students (from graduate school and student groups)
3. Regular follow-up meetings with graduate students
4. Graduate school symposia on enhancing minority participation
5. Graduate education workshops with own undergraduates
6. GRE prep workshops for undergraduates
7. Sponsor annual social events (dinners, receptions)
8. Sponsor graduate research groups
9. Mentoring
10. Tracking ABDs
11. Financial Support
12. University scholarships, fellowships, RAs and TAs
13. Dissertation support
14. Research travel
15. Emergency fund
16. Academic Support
17. Support needs for research work
18. Mentoring
19. Supportive Environment
20. Orientations
21. Formal and informal networks
22. Guidance and mentoring
23. Identifying faculty with interest in enhancing minority participation (resource people, advisors)
24. Graduate school newsletters and other communications

## It Takes a Village: Supporting Underrepresented PhD Students at the University of Southern California

*Sally Pratt*

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University of Southern California (U.S.)**

Americans got to know the maxim “It takes a village to raise a child” as the title of a book published by Hilary Clinton in 1996. The saying was attributed to “an African proverb.” Some of you probably know more about the proverb than I do. Be that as it may, what I am going to talk about today is the whole “village” of support that the University of Southern California has built for its underrepresented PhD students.

I’ll start with a bit of history. The beginning is a story of failure, or at any rate, a lack of success. In the early 2000s, USC offered Diversity Fellowships for PhD students who identified as African-American, Hispanic, Pacific-Islander, Native American or Alaska native. In hindsight, it became clear that there were multiple problems with this program. Faculty committees sometimes got caught up wrangling about who was more “authentically” ethnic and in legally and culturally unsuitable conversations. In a well-meaning effort to avoid such conflict and charges of bias, faculty often reverted to the use of combined GRE scores as the primary qualification for the awards. This not only de-emphasized key aspects of the holistic review of applications, but also went against the recommendation of the Educational Testing Service. Because of differences in the scoring scales of the Verbal and Quantitative sections, the practice of combining the scores inappropriately penalized students on the basis of Verbal scores, while in appropriately rewarding students on the basis of Quantitative scores. And finally, with this system there was no “village” in the mix. The award letters were generic – they came from the Graduate School rather than from the student’s desired program, and there was no sense of welcome and support for the student from faculty and staff in the student’s chosen field.

It will most likely come as no surprise that, even though the stipends were higher than average, these well-intended but poorly thought-through Diversity Fellowships did not increase the number of underrepresented students in USC PhD programs. The percentage of underrepresented students neither decreased nor increased. It just stayed the same. We were left with the same old concerns about making USC a rigorous, supportive, and welcoming university for a profoundly diverse array of students from the United States and around the world.

Because of this, and thanks to two years of hard work by graduate diversity task forces, we came up with a new plan. We called it the Graduate School DIA Initiative – D-I-A, standing for “Diversity, Inclusion, Access.” At first, the DIA Initiative was simply an approach to fellowships that put more authority in the hands of the individual PhD programs. I’ll talk about that aspect in a minute. But when I presented the plan, the Provost wisely said, “I don’t want to just throw money at this. We need a whole program.” He didn’t see money as the primary issue – it was money plus everything else, plus academic support, plus feeling at home and welcomed, plus critical mass, plus recruiting the next class, and the next, and the next. The Provost looked me in the eye in his inimitable fashion and said, “Come back in a month and tell me what you are going to do about the rest of it.”

At this point, we realized that we needed a whole village of support. So we went back and started building it. First were the fellowships themselves. DIA Fellowships are no longer awarded

by anonymous panels of faculty acting on behalf of the Graduate School. The DIA Initiative puts DIA fellowships in the hands of each PhD program, and the program communicates directly with the student every step of the way. The sense of belonging to a community begins right there, in communication between the student and the faculty and staff in the student's specific area of interest. Each PhD program has a DIA fellowship "on the shelf," just waiting to be used. They can offer that fellowship any time up to the Council of Graduate Schools deadline of April 15. If a student turns down a fellowship offer before the deadline, they can offer it to another DIA-qualified student. If they don't use it one year, that's ok – they'll still have a DIA fellowship available the next year. And if they have a second eligible candidate before the deadline, we'll do our best to provide a second DIA fellowship.

By articulating the concepts of inclusion and access in connection with diversity, we consciously broadened the scope of the initiative. It now includes first generation students, students with disabilities, veterans, and groups underrepresented by field – for example, women in physical sciences and finance, men in nursing, and the like, as well as established racial and ethnic minorities. This more accurately reflects USC's commitment to creating a PhD workforce that mirrors the world we live in.

When DIA Fellows enroll at USC, their PhD programs and schools provide academic support and career development appropriate to the given field. While programs and schools can do this more effectively than the central Graduate School, the Graduate School contributes in a number of areas that are best handled centrally. One area in which we play a crucial role is combatting the issue of "onlyness," of being the only student in a lab, seminar, or program of a certain demographic or with a certain identity. USC PhD programs are relatively small, and no one of them by itself is liable to be able to re-create a perfectly balanced diverse and inclusive population of qualified students. However, if we take the PhD population of the university overall, we have a more diverse and balanced population. If we create events open to students from a broad array of programs, students inevitably encounter others like themselves and can form different kinds of cross-disciplinary communities. For example, we have a luncheon for DIA Fellows, their families, and their faculty and staff mentors. As the number of DIA cohorts grows (this year we have brought in the second cohort), this group will increase in size to form a rich mix of cross-disciplinary conversations. It will also provide critical masses of underrepresented students with specific orientations and identities. The university's cultural centers provide some of the same functions, but with emphasis on social and emotional support, rather than academics. These include the Center for Black Cultural and Student Affairs, El Centro Chicano, the Lesbian Gay Bisexual Transgender Resource Center, the Asian Pacific American Student Services Center, and the Office of Religious Life, which houses over 100 religious clubs and groups.

Another form of support, and a way of acknowledging the value of individual students within the context of a large university, comes from a program called "Lunch with VPGP" – or Lunch with the Vice Provost for Graduate Programs, namely me. I have lunches with groups of roughly twenty graduate students about a dozen times a year. Attendance is by lottery, and we always have many more students who want to come than we can accommodate, which I take as a good sign. The lunches are informal and provide an opportunity for students to ask pretty much any question they want, and to hear an answer directly from me. They also provide a chance for me to hear students' concerns directly. The discussions range from complaints about the price of food in cafeterias to issues of racial tension in the classroom and the university's policies on sexual harassment. One of the most striking things about the lunches is the diversity of the participants. Even when the lunch is not connected with the DIA Initiative per se, the range of ethnicities, fields, and turns of mind is striking. The lunches are widely regarded as important

and successful – to the point that one day I got a phone call from the university President’s Office informing me that I should hold more such lunches. And not long after that, I learned that the President himself had started holding lunches modeled on “Lunch with VPGP.”

And finally, we have the DIA JumpStart program, which is designed to expand the pool of underrepresented students who apply to PhD programs. JumpStart involves collaboration between the USC Graduate School, USC PhD programs, and a group of minority-serving institutions who send rising juniors and seniors to work in labs and projects over the summer. The PhD programs provide the core academic experience, and the Graduate School provides networking and academic professional development events, as well as supplying a stipend and a metro card for each student. We hold an opening reception and a “graduation” ceremony for the participants, their mentors, and often their families. Families are definitely part of our village too. One of the best things we do is pair JumpStart participants, who are undergraduates, with DIA PhD Fellows, who take the role of mentors. The DIA Fellows may be only first year PhD students themselves, but as they work with the JumpStarters, they see that they have already come a long way from their undergraduate days. They see that have something significant to contribute to the academic, social, and emotional support for these younger students, and that they themselves are valued members of the mentoring community.

Taken together, all these elements – the vision of the applicant as a whole person applying to a specific program, the funding, the lunches, the teamwork with minority-serving institutions – all of this represents the DIA Initiative, and the village that supports underrepresented PhD students at USC.





# 6: Addressing Specific Demographics

## Bringing More Diverse, In-Depth Research on the Indigenous Peoples of Canada to a Wider Audience

*Philippe-Edwin Bélanger*

**Director, Department of Graduate and Postdoctoral Studies,  
Institut National de la Recherche Scientifique  
University of Québec (Canada)**

Dialog, the Indigenous Peoples Research and Knowledge Network, is an interdisciplinary forum of universities, institutions, and stakeholders in a variety of sectors. Created in 2001, it is attached to Institut national de la recherche scientifique (INRS) and led by Professor Carole Lévesque. It currently brings together more than 100 academics and representatives of Indigenous communities, building on its close cooperation with 19 institutional partners, including nine Indigenous organizations.

The network was created at a time when research on Indigenous peoples was rapidly evolving. The traditional silos of university study were being broken down. For decades research on Indigenous peoples came largely from the field of anthropology. Suddenly it was appearing in disciplines as diverse as linguistics, law, history, demographics, political science, geography, sociology, education, criminology, environmental studies, business, literature, and communications. After the findings of the Canada-wide Royal Commission on Aboriginal Peoples were released in the 1990s, the field saw an explosion of interest, with a surge in the number of researchers and students—Indigenous and non-Indigenous alike—as well as a growing diversity of research topics. What’s more, Indigenous organizations and communities were increasingly demanding to play a role in the research about them and voicing their concerns that researchers and academics take their own research needs and their own intellectual traditions into account. This was the genesis of DIALOG. The idea was to create a public, collective forum to build bridges between the many disciplines studying Indigenous peoples, to establish connections between academia and the other places in Indigenous communities and societies where knowledge is produced, to bring together all the knowledge acquired thus far, and to disseminate scientific contributions more broadly among Indigenous communities and organizations.

Today the network is an innovative place where First Peoples and academia can share ideas, create real-world value out of research, and build knowledge together.

Its mission:

**HELP CREATE AND MAINTAIN INNOVATIVE, ETHICAL, SUSTAINABLE DIALOGUE** between universities and Indigenous communities and organizations.

**DEVELOP A BETTER UNDERSTANDING** of the historical, social, economic, cultural, and political realities of Indigenous peoples as well as their current priorities and the relationships between Indigenous and non-Indigenous peoples. Work to build knowledge together and encourage researchers and public policy makers to take Indigenous people’s needs, knowledge, practices, perspectives, and approaches into consideration.

**SUPPORT EDUCATION AND GUIDANCE** of university students, in particular Indigenous students, by including them in the network’s activities and work and offering them financial assistance programs and merit scholarships.

**MAGNIFY THE INTELLECTUAL, SOCIAL, ECONOMIC, AND CULTURAL IMPACT** of research on Indigenous peoples by developing new tools for sharing knowledge that are interactive, participative, and educational.

Over the past 16 years, under the leadership of Carole Lévesque, the network has directly helped create and maintain constructive an innovative dialogue between researchers, students, and representatives of Indigenous organizations and communities through the following actions:

1. Some 100 public events, learning days, roundtables, and scientific conferences and symposiums organized with the support of Indigenous and university partners
2. Members—researchers, students, and partners—participating in national and international forums
3. Developing and strengthening new research collaborations and joint projects between researchers and partners
4. Sharing expertise and knowledge in the context of university teaching
5. Spearheading an extensive array of financial assistance programs for students, researchers, and Indigenous partners in the network, with more than 15 competitive merit scholarships and research allowances awarded each year to students in Canadian universities, enabling them to pursue their research with Indigenous communities across the Americas and to present their findings at major international scientific conferences.

The network also produces a monthly newsletter where members can showcase their contributions, the network can report on its activities and work in Quebec and beyond, and readers can keep up on the latest papers being shared around the world. DIALOG's website provides heightened visibility to network members and access to databases of knowledge, research findings, and scientific information about Indigenous peoples.

One of the databases developed by the network is Autochtonia, a repository compiling every document produced in Quebec about Indigenous peoples. This repository has more than 16,000 titles and offers online access to thousands of documents. It covers over a century of scientific research and also provides an index of documents issued by Indigenous organizations and the Quebec and Canadian governments. A search engine allows quick and easy keyword searches. Users also have access to a number of related products.

One of the network's most creative achievements is Université nomade, an educational program that truly reflects DIALOG's vision and its commitment to knowledge. Created in 2007, this travelling program is one of the network's most prominent initiatives to encourage sharing of knowledge, skills, and learnings between academia and the Indigenous communities. Université nomade offers dynamic, interactive instruction that teaches participants how to take an ethical, reflexive, integrated approach to Indigenous questions. Teaching teams feature a mix of researchers, students, and Indigenous partners. Sessions align with recognized academic programs, so students can earn credit. Université nomade welcomes students from numerous universities as well as researchers, speakers, practitioners, civil society groups, and the general public. So far there have been 15 editions of Université nomade, including two in Mexico, two in France, four in Montreal, three in Val-d'Or, and one in Chisasibi (Eeyou Istchee). More than 1,000 people have participated in the program to date, with roughly 15 universities and 10 Indigenous organizations represented.

Last but not least, one of the most exciting knowledge-sharing initiatives is the ODENA research alliance, formed in 2009. Its purpose is to directly support the social, economic, political, and cultural development of Indigenous populations of Quebec cities and towns and to highlight the collective efforts of Friendship Centres across Quebec. The alliance promotes local research, ongoing knowledge sharing, and direct involvement in the social rebuilding initiatives put forth by Indigenous organizations. It is a place where representatives of Indigenous civil society and dedicated university researchers work together to build knowledge, improve quality of life for urban Indigenous persons, and renew relations between First Nations and other citizens of Quebec in a spirit of equality and mutual respect.

The network supports and promotes the development of a new type of organizational and institutional culture rooted in and driven by university research. The network is helping to make research on Indigenous peoples more accessible so that every stakeholder from every background can speak the same language. What is that common language? It's one based on the principles of sharing, engaging, coming together, looking back at ourselves, and moving forward.

## Diversity and Inclusion Policies at the University of São Paulo / Brazil

***Carlos Gilberto Carlotti***  
**Provost, Graduate Studies**  
**University of São Paulo (Brazil)**

The University of São Paulo is the most important Brazilian University located in the State of São Paulo and has the characteristic of being financed almost 100% by the State of São Paulo, without any fee for all its undergraduate and graduate students. Fees are charged only in professional specialization courses.

For many years the University has been concerned almost only with research and quality education, an objective that has always been achieved, and the admission process to undergraduate studies has always been carried out through a general examination with the students being classified according to their grades. This procedure made the University an institution maintained by the state, in which its students came only from the highest social classes. Only in the last 10 years did the University begin to consider socioeconomic factors in its enrollment process. More recently, over the past six years, it has also considered gender issues in its internal policies.

The purpose of this presentation is to demonstrate these two policies, enrollment process and gender at USP.

The State of São Paulo has the following characteristics: 63.9% people are classified as white, 29.1% are mixed people, 5.5% are black, 1.4% are Asian, and 1% are native people. In relation to students who attend high school, 1,615,634 (85%) attend public schools and 275,974 (15%) private schools.

The first action to increase diversity at the University was to offer bonus in the grades during the admission process. The students who attended all their high school in public schools would receive up to 20% bonus in the final score, and if they were black and mixed people, they would receive additional 5% bonus in the final score. This policy was implemented gradually and increased social and ethnic inclusion in the University, with maximum levels of 30% of students from public schools and 20% of black and mixed people, the distribution was not uniform, being significantly lower in the courses with high demand, for example engineering and medicine.

In the last 2 years there has been a change in the inclusion policy, and it has become fixed quotas for all courses, 50% of the places are offered to public school students, 37% of which are to be filled by black, mixed people, or native people.

Two concerns are currently being discussed at the University, the first is about possible difficulties that students entering by quotas will have in their courses, will there be a need for a supplementary education? So far no policy has been implemented to this end. The second refers to the need for scholarships for the financing of students with difficulty to keep studying exclusively, without the assistance of their families for housing, transport, food and other expenses. Currently the University has a program of 6,000 scholarships for needy students,

valued at \$ 150/month, and free meals. This policy does not seem to be enough to prevent school dropouts, but the University has no budget to increase this aid. This is currently perhaps the greatest challenge of the University. The inclusion policy was implemented to last for 10 years.

Regarding gender, the policies initiated were due to the growing number of accusations of rape in the University environment, mainly involving students and in some cases employees, the increasing mobilization of feminist groups imposed the gender agenda for the University.

Four years ago an exclusive office was set up in this University, the “USP Women”, which started to propose policies and actions that would change the situation presented.

Some measures adopted were as follows, a community-wide education program calling for the right of women to make decisions and not accept sexist sexual impositions, this policy is in line with the UN’s “He for She” Program, a program that the University has officially joined, including meetings at UN headquarters with universities, governments, and private companies. Several publications, videos, and posters were made with broad dissemination of conceptual sentences on the subject, for example “No is No” or “Enough.”

A second policy was to establish procedures for the facilitation of denunciations and reception of victims of sexual violence. Agreements were made with public health agencies for the complete treatment of these cases.

From the administrative point of view, the policy implemented was “Zero Tolerance”, that is, all cases would be investigated and conducted with rigor, but some facts have been detrimental to this policy.

The University can legally only take administrative measures, that is, after checking the facts can suspend or eliminate the student. All judicial initiative depends on the express will of the harassed student. Another fact that interferes with a more austere policy is the lack of efficient investigative mechanisms, only testimonials can be considered, there is no provision for obtaining evidence by expertise or breaking personal secrecy, only the police authorities have this prerogative. The delay in investigating these cases for years and the lack of immediate sanctions has brought a sense of inefficiency to the community. Even with these considerations, there is a clear change in the University environment regarding respect for women and people with different sexual orientations, there has also been a significant decrease in cases of rapes.

In a survey conducted by USP Women’s Office with 13,000 undergraduate and graduate students (Total University 90,000) in the second half of 2017, 26% answered that the university environment is very sexist and 45% consider it as kind of sexist. In relation to racism, 26% answered that their perceptions are that the university environment is racist and 38% considered it more or less racist. About 40% answered that the University is as racist as non-university environments, with 60% of them consider that the university environment is better than society in general.

I believe that progress has been made but the way forward is still very long.

## Diversifying Postgraduate Students for a Diversified Professoriate: The Experience of UJ

*Linda Mtwisha*

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### **Background: The National Context**

The year 2015 was a watershed moment in the history of South African education. It saw the implosion of a long-coming array of protests across the nation's universities after it was announced that there would be a 7% increase in fees for the subsequent year. The protests, which began in September, lasted until November when the Presidency announced that there would be no fee increment for the year 2016. This saw the students come out in favour of affordable or preferably free education.

The announcement saw a re-apportioning of already scarce resources from the postgraduate levels to the undergraduate levels. Already subsidies had been precarious and somewhat declining. As a result, the funding available for postgraduate studies has significantly declined. Due to the country's history, this fact has direct implications for university diversification efforts; those most likely to be in need of funding for Higher Education and for pursuing postgraduate studies tend to come from the Black and Coloured demographics. The available funding has also become more strictly designated to South African students and this leads to a further challenge for diversification.

### **The University of Johannesburg**

The University of Johannesburg, composed of 4 campuses, populated by 52,000 students, is the most populous in the country. With 7 faculties and a College of Business and Economics, the university has positioned itself, from its origins and especially recently, on a path towards a Pan-Africanist outlook and has actively worked towards the decolonisation of the curriculum since 2015. The University has a Charter on Decolonisation, flanked by a compulsory online course on African insights and seminal texts are freely available to students.

Part of the motive behind the enacting of transformation at this level stems from the need for a generational disjuncture from the current state of affairs wherein the Professoriate, publishing and senior management within academia is not reflective of the general demographics of the country. Quite simply, UJ is keenly interested in not only research, but the central issues around who is doing that research and for whom. Most recently, with a focus and drive for change from research that leans heavily on theories from the global North to one that integrates and recognises Africa's content and contribution to knowledge production in Higher Education – one of the arguments of the #Fees Must Fall campaign, for a need to unsettle coloniality of knowledge. This is not disconnected from the demand for quality. Excellence and diversity are critical components for today's university, and the university of the Fourth Industrial Revolution.

As a result, interventions have been established, and more are being implemented, which are aimed at attracting and retaining black students. The main challenge has been, as a result of the funding bottlenecks identified above, the tendency of black students to drop out from the

honours level onwards and pursue employment to compensate for the economic situations in their homes.

“One of the key challenges in Africa is that master’s level enrolments are growing much faster than doctoral levels. On average in Africa the conversion from a master’s qualification to doctoral enrolment is very low. The developmental role of universities, and the doctorate specifically, in Africa is well understood, however, many of the African countries do not have sufficient resources to invest in the capacity to produce doctoral candidates.”<sup>1</sup>

### **Current Status**

Currently, at UJ, the doctoral registrations show that African students are 68.5% of the doctoral student body, 20.4% are White, 8.8% are Indian and only 0.3% are Coloured. With 39.6% of the 1360 students being female. From an international perspective 63.5% are South Africa, 20.3% are from the rest of the SADC region, 13.5% are from the rest of Africa and only 2.7% are from the rest of the world.

### **Demographic Targets**

The UJ’s Strategic Plan 2025 has set institutional targets and performance indicators that reflect recognition of diversity beyond gender and racial dimensions. The inclusion of indicators and targets, among others, of international students and academics, inter-and multi-disciplinary programmes, partnerships with BRICS countries, the US and Europe and programmes addressing the drive to decolonise knowledge signal an appreciation of an inclusive and broader definition of the University’s diversity agenda. One that will respond to key challenges of diversity in terms of race, gender and knowledge in the context of the Fourth Industrial Revolution with a Pan-African focus.

The University prides itself of offering accessible excellence. In this regard, excellent progress has been made on the national questions of equity and diversity in our staff and student bodies. Our student body at both under- and postgraduate levels continue being predominantly black, with over 30% of our undergraduate students coming from schools that serve the poorest in our country. At the same time, our graduates are transforming the make-up of their professions, for example, UJ annually contributes on average 21% of all South African black chartered accountants. While, the percentage of black permanent and fixed term academic staff has grown to 41.8% (2017), the University continues with remedial efforts to increase black professors at UJ.

The University’s intervention strategies for transformation and diversity have been linked to those at the national level under the auspices, among others, of the National Research Foundation (NRF), the Department of Higher Education and Training (DHET), the Department of Science and Technology, and NIHSS-SAHUDA. Some of these instruments provide support to specific disciplines, e.g., NIHSS-SAHUDA for Humanities and Social Sciences doctoral studies, others support young and emerging scholars with a focus on transformation, while others focus on strengthen research leadership capacity. The 2016/17 NRF Annual Report has noted the Research and Innovation Support and Advancement (RISA) division supported 14, 173 postgraduate students during the 2016 academic year.

“Of these students, 10 747 (76%) were black and 8 017 (57%) were female.  
A total of R2 269m was expensed over the financial year in support of human

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1 Motala, Shireen. ‘Globalisation and Demographic Shifts in South Africa’, in 11th Annual Strategic Leaders Global Summit on Graduate Education, 2016: 21.



capacity development, knowledge generation and infrastructure provisioning. To this end, R904m was invested in postgraduate support, where a total of 4 995 master's and 3 363 doctoral students were supported against a target of 5 300 (94% performance) and 3 200 (target exceeded by 5%) respectively.”<sup>2</sup>

Further,

“A total of R495m was invested in support of emerging and established researchers including postdoctoral fellows. This resulted in a total of 4 520 researchers being supported in the 2016/17 financial year, of whom 1 563 (35%) were black against a target of 1 739; and 1 699 (39%) were female against a target of 2 209.”<sup>3</sup>

The Report notes that the relatively slow rate of transformation of the research cohort “*remains an ongoing challenge.*” Chief among these has been the ongoing decline of the parliamentary grant, which over the five-year period from 2012 to 2017, has declined, year on year, in real terms by an average of 3% per year. Despite the fact that the designated and earmarked allocation to the NRF has increased in real terms over the same period, as the report notes, this “remains an area of concern for the operational and financial sustainability of the organisation,” with major implications for the diversification efforts of the university at the postgraduate level. The national context in which we operate carries an impact for the research funding agencies, and thereby for the university.

### **Challenges and Opportunities**

In response to the postgraduate student recruitment and retention challenges identified – as well as the job market demands of the economy of the Industry 4.0 – we have to intervene with some creative but cost effective solutions. The South African higher degree funding environment is challenging and we expect it to become even more so. UJ, therefore, endeavours to diversifying its sources of funding, including exploring internal ways of generating third stream funding for postgraduate studies.

Other key areas include dual affiliations and graduation acceleration incentives. The first includes ensuring the postgraduate students have a diversified experience. This could be in the form of dual affiliations – making use of international partner institutions for co-supervision across universities. The latter includes strict implementation of DHET requirements for completion of qualification in record time so that space is opened up for newer cohorts of postgraduate students.

However, it is important to recognise that diversification of postgraduate students is more complex, it is not just about funding, even though it is a critical enabler. It is also about opening up opportunities for retaining newly qualified doctoral students, and for them seeing their trajectory in the university system; it is about providing opportunities for production of knowledge that acknowledges the experiences of the black and female students, it is about acknowledging and addressing the socio-economic inequities of our societies that see black students looking at financially rewarding corporate sector; it is about addressing the institutional culture that is alienating to black and female students. This context requires not only financial intervention, but an intervention that is co-ordinated and addresses a variety of challenges.

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2 Qhobela, Molapo. ‘Overview by The Chief Executive Officer’, in the National Research Foundation 2017 Report, 10-15, Available at: [http://www.nrf.ac.za/sites/default/files/documents/NRF%20AR%202016-17\\_DevV21\\_web.pdf](http://www.nrf.ac.za/sites/default/files/documents/NRF%20AR%202016-17_DevV21_web.pdf)

3 Ibid.

## Promoting Diversity through Collaboration – the SARUA Curriculum Innovation Network

**Martin Oosthuizen**  
**Executive Director**  
**Southern African Regional Universities Association**

### 1. Background to the SARUA Curriculum Innovation Network

The Southern African Development Community (SADC) is a complex region. It has a combined population of approximately 277 million people, while comprising 33% of Africa's land area and 25% of Africa's population. There are at least 109 public universities, 515 technical universities/colleges and a fast-growing sector of 467 accredited private tertiary institutions.<sup>1</sup> The largest country in SADC, the Democratic Republic of Congo (DRC), is 70% of the land size of India, and the smallest, Seychelles, is a small island developing state with a population of less than 100,000 people and one relatively young public university. Add to this the history of three distinct colonial legacies, with three regional languages of tertiary education – English, French and Portuguese – and it is evident that fostering higher education collaboration across 16 diverse countries requires a patient and pragmatic approach.

As a membership-based organisation of Vice-Chancellors of public and private universities in the SADC region, the dual purpose of the Southern African Regional Universities Association (SARUA) is:

- To promote, strengthen and increase higher education, training and research through institutional collaboration and capacity-building initiatives across the SADC region.
- To promote SADC universities as major contributors towards national and regional socio-economic development.

This requires of SARUA to be inclusive and to foster diversity in its regional programmes. One such flagship programme is the SARUA Programme for Climate Change Capacity Development (PCCCD), a multi-year programme initiated in 2010, which focuses on the shared, trans-boundary challenge of climate change, in order to establish networks for collaborative research, teaching and learning and community engagement.

The work on the PCCCD led to the launch of the collaborative SARUA Curriculum Innovation Network (SCIN), with a membership spanning 15 SADC countries, in 2017.<sup>2</sup> The seven-year process that led to the establishment of SCIN was by design a process that identified diversity first and foremost as a criterion for a successful network. This was also done to prevent the dominance of South Africa's tertiary education system from skewing regional participation. SCIN's establishment happened in three phases:

### 2. Phase 1: Mapping Study

Based on preliminary research, a comprehensive 12-country<sup>3</sup> mapping study was conducted by SARUA and expert partners in 2013-14, to determine the national responses of governments and universities to climate change. This involved policy analysis and 12 in-country workshops with university leaders, researchers and policy makers, to build a bottom-up picture of how universities are responding to the threat of climate change in their curricula and research. The mapping study engaged with 1654 stakeholders, involved 563 workshop attendees, received 349 survey responses and

1 Based on best available data from 2012 onwards.

2 Comoros officially joined SADC in August 2018 as the 16th member.

3 Three SADC countries were excluded at the time due to issues of budget and political instability.

produced 1595 pages of analysis. From the analysis a regional knowledge co-production framework was published by SARUA, which identified *inter alia* curriculum innovation as a key shortcoming across SADC countries. The establishment of a SARUA Curriculum Innovation Network (SCIN) was decided on as a practical intervention to address this.

### 3. Phase 2: Establishing the Network

It was decided that the establishment of SCIN would be best if implemented by way of a pilot curriculum innovation project. From the mapping study findings, a Master's level curriculum was regarded as a key 'curriculum innovation point.' SADC countries have a shortage of locally-educated PhD graduates who can produce new knowledge for climate action, and also do not always have sufficiently qualified policy makers who can address the complex issues of climate change and sustainable development. By developing a southern African curriculum through a process of South-South collaboration and by hosting curriculum capacity development workshops with university lecturers, it was decided that SCIN would address the three interlinked issues of knowledge, capacity and collaboration, and thereby make a contribution towards the sustained transformation and revitalisation of higher education in SADC.

Since the development of such a collaborative, open access Master's curriculum was a first for the region, it also became necessary to ensure that a development and delivery strategy was in place which would not inhibit an open and flexible approach, but would maintain quality in such a way that the curriculum can grow as a regional resource relevant to all SADC universities.

To ensure diversity, roles were defined for the formal delivery partners, but also for voluntary contributors and organisations who wished to participate in the network and the process. The idea was that not only could stakeholders participate in the SCIN as participating universities, individual contributors or external stakeholders, but that any individual within these groups could contribute directly and voluntarily to the delivery of the PCCCD and SCIN objectives.

The following bodies were established through an open process among SARUA members:

- **The Curriculum Innovation Working Group (CIWG)** was a four-person committee of Deputy Vice-Chancellors nominated by the region's Vice Chancellors to provide ultimate project oversight on behalf of the SARUA Executive Committee. It comprised members from Zimbabwe, Tanzania, Zanzibar and South Africa.
- **The Curriculum Review Team** was a three-person technical team of recognised climate change and education experts, who advised the CIWG on curriculum quality and included members from Mauritius and South Africa.
- **The Peer Review Group (PRG)** was a 100-person regional group of researchers, academics and policy makers, who volunteered to review the curriculum at various stages of its development. It comprised members from Botswana, DRC, Kenya, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, USA, Zambia and Zimbabwe.
- **The University Delivery Consortium** was a consortium of universities appointed to develop the Master's curriculum through an open bidding process, and comprised Rhodes University and the University of Cape Town (coordinating university) in South Africa, Universidade Eduardo Mondlane in Mozambique, the University of Mauritius, the University of Namibia, Sokoine University of Agriculture in Tanzania and the Open University of Tanzania. The team comprised 22 members.

The SARUA curriculum was finalised and launched at the start of 2017. It was designed to be modular, and is available in English, French and Portuguese, in order to make it accessible to the diversity of institutions who might want to make use of it. It includes seven modules of relevance to climate change and sustainable development in southern Africa. Three modules are core (i.e. compulsory) and four constitute elective areas of specialisation. Each module provides for 200 notional hours of

learning, plus an additional optional 50 notional hours. It is envisaged that each of the seven modules may be delivered as such if seven or fewer modules are sufficient for the accreditation system of the university delivering the curriculum. If a university's Master's structure requires more than seven modules, it is possible to break the modules into their sub-components and use these to build alternative units. It is also possible that additional/ alternative modules may be incorporated into the programme from the host institution, provided that such a module is approved in advance by SARUA.

There are also thematic areas that are cross-cutting and found in multiple modules, which could be extracted and delivered as a future elective module. It is further required that a programme using the SARUA Master's curriculum includes an independent research project which may comprise between 33% and 50% of the curriculum.

#### **4. Phase 3: Embedding and growing the network**

##### *4.1. The Climate Change Project*

The process of embedding the network through changed practices started in 2016, with two regional curriculum capacity development workshops held with lecturers from interested and participating universities. The objectives were to equip established and emerging academics in the SADC region to prepare and deliver the Master's curriculum, and to ensure that the learning material from the Master's curriculum development project is used.

From an application list of 116 individuals, 83 lecturers from 22 universities across 9 countries were selected to participate in the workshops, where they developed implementation plans for introducing the curriculum in their respective universities.

##### *4.2. The Sustainability Starts with Teachers Project*

In 2017, SARUA embarked on a new partnership with the UNESCO Regional Office of Southern Africa (ROSA), Rhodes University and Swedish International Centre of Education for Sustainable Development (SWEDESD). The project was called '*Sustainability Starts with Teachers*' and was focused on integrating Education for Sustainable Development (ESD) into the curricula of teacher education institutions, in order for future secondary school teachers across the SADC to also innovate when developing their own curricula.

An action learning programme was developed by the project partners and delivered to teacher educators representing 61 tertiary institutions in nine SADC Countries. The teacher educator workshops were held in Zambia and Swaziland in 2017, with a review workshop held in 2018 in South Africa to reflect on how curriculum innovation has taken hold in various SADC institutions.

This project became an extension of SCIN, since participants were invited to also make use of exercises and tools developed as part of the Master's curriculum, to incorporate into their teaching at their respective universities. A platform has been established where the learning material is available, and which can become a shared resource for regional curriculum innovation.

Whereas the roots of the SARUA Curriculum Innovation Network lie in disciplines related to climate change and sustainable development, the future of the network is to continue to use the same approach and methodologies to introduce curriculum innovation in other ways across the SADC region. The SARUA model is now a tested model of open and transparent collaboration, with diversity of input a key tenet. It is also important for SARUA that outputs produced by SCIN activities can address the diversity found in SADC universities in terms of systems and accreditation processes.

SCIN has grown into a network of 472 active individuals – 395 from the Master's curriculum project and 77 from Sustainability Starts With Teachers – who share an interest in curriculum innovation as a driver for change in the SADC region's universities.

# Measures of ECNU to Ensure the Quality of Its International Graduate Studies Programs

**Aoying Zhou**  
**Vice-President**  
**East China Normal University (PRC)**

## I. An overview of East China Normal University

Founded in October 1951, East China Normal University (ECNU) is one of the top-tier universities in China. It has been selected into various prestigious education programs, such as “Project 211” (1996), “Project 985” (2006), and the National Double First-class University Initiative (2017).

Currently, ECNU consists of three faculties, 29 full-time schools and colleges, four academies, eight advanced research institutes, two key state-level laboratories and one unconventional college. It offers doctoral programs in 30 of its first-level disciplines, master’s programs in 37 first-level disciplines, and 83 bachelor’s programs.

## II. An overview of ECNU international student education

ECNU is committed to promoting scientific research and student cultivation through internationalization. Therefore, it takes international student recruitment and education as an important means to realize the strategy for international development.

By the end of 2017, a total of 6,224 international students had been studying on ECNU campus, either for degrees, Chinese language improvement, or for further study, among whom 706 were postgraduate students. Against this background, the university has launched the following two distinctive programs to promote international student education.

### 1. International Master of Education for Educational Leadership and Policy for developing countries

This program was established in 2010 in recognition of ECNU’s advantage in educational disciplines. Supported by China’s Ministry of Education and Ministry of Commerce, it aims at cultivating education decision-makers, researchers, and education leaders for developing countries. Up to July 2018, 187 students from 45 countries in Africa, Asia, Latin America, Oceania, and Europe had graduated with degrees. Among them, 126 are from 24 African countries, such as Ethiopia, Rwanda, Sudan, Tanzania, etc.

### 2. English-taught Graduate Programs

Initiated in 2013, this program did not start enrollment until two years later in 2015. Borrowing from the experience of foreign universities in graduate student cultivation and giving full play to ECNU’s disciplinary advantages and unique characteristics, it recruits from all over the world young scholars that are academically outstanding, broad-versioned, responsible, and mission-driven. All the courses in this program are taught in English. Up to now, the program has covered seven majors, including mathematics, statistics, anthropology, Chinese philosophy, political science, international relations, and international business. Among the 276 MA and PhD candidates from 62 countries, including the United States, Russia, Kazakhstan, Pakistan, Italy, and Tanzania, 66 have graduated with a MA degree.

### III. Quality Guarantee for English Taught Courses Program for international Graduate studies

#### 1. Curriculum

Drawing upon the experience of domestic and foreign universities in graduate student cultivation and making full use of our own disciplinary advantages and characteristics, we have strived to meet international education demands by integrating Chinese characteristics and international standards into our own student cultivation plan. Based on the internationally recognized curriculum modules, our curriculum aims at helping students build a solid foundation with a broad caliber, placing emphasis on interdisciplinary interaction and practice. In addition, we have also put equal stress on modular teaching, case study and in-depth practice to better prepare students for academic research and practice. For this purpose, we have set up a teaching guidance group at university and college levels to ensure teaching quality. Members of the group meet regularly to discuss curriculum construction and course teaching.

#### 2. Teachers

The course instructors are mainly Chinese teachers highly experienced in teaching and intercultural communication. Internationally renowned scholars, such as those from the University of Virginia, the Moscow University of Economics, and the University of Lille, are also invited on a regular basis to teach or give lectures.

#### 3. Rules and regulations

Borrowing from the experience of European and American universities, we have worked out Regulation of ECNU for International Graduate Studies Programs, which specifies explicitly the duration of study, modes of cultivation, curriculum provision, credits, and requirements for academic achievements and for thesis writing and defense. An academic evaluation committee has been set up to guide students in academic study and handle disputes concerning courses, instructors, and grades.

#### 4. Funding

The university has established a fund for international education program development, allocating RMB 400,000 yuan to each major in support of their admission promotion, curriculum reform, teacher recruitment, and student practice. We have also received funding from the Chinese government and the Shanghai Municipal Government to subsidize the tuition, accommodation and living expenses of international students.

### IV. Challenges we face

**1. Sources of scholarships need to be expanded:** Currently, the sole sources of scholarships for international students at ECNU are those offered by the Chinese government and the Shanghai Municipal Government. However, the relatively limited availability of the scholarships has restricted the further development of our international student education. Therefore, to expand the scale of international students, we will provide more scholarships by raising funds from multiple channels.

**2. Services to students need to be upgraded:** Due to the relatively small international student population on campus and the highly differed cultural backgrounds, the services we provide, such as career and psychological counseling, can not fully meet the needs of the international students. In the future, we will experiment managing international students in a way similar to managing Chinese students and provide them with tailor-made services.







# **Biographical Sketches of Participants**



**Riadh Abdelfattah** is presently the vice-President of the University of Carthage (since December 15th, 2017) and Professor at the Higher School of Communications for engineers (SUP'COM) at the University of Carthage in Tunisia. He also is an Associate Researcher at the Department ITI at IMT-Atlantique, Brest, France. He is an elected member at the scientific council of the Agence Universitaire de la Francophonie (AUF, 2016-2018). He was an elected member (2011-2017) at the university council of Carthage. He received the engineer degree from the Telecommunication Engineering School of Tunis, Tunisia in 1995, the master's degree (DEA) and the Ph. D degree in Electrical Engineering from the "Ecole Nationale Ingénieurs de Tunis", in 1995 and 2000 respectively, and "le Diplôme de l'Habilitation Universitaire" from SUP'COM at the University of Carthage in Tunisia in 2008. He is a founding member of the Research Unit in Satellite Imagery and its Applications (URISA) in January 2004 (2004-2011), and a founding member of the Communication, Signal and Image Laboratory (COSIM-Lab) in November 2011 at SUP'COM. Between 2000 and 2002 he was a postdoctoral researcher at the "Ecole Nationale des Télécommunications", Paris, France consecutively at the department TSI and then at the department COMELEC. He is a senior member of the IEEE and he served as a member of the Executive Committee of the IEEE Tunisia Section (2013-2015). He has authored and co-authored more than 70 journal papers, conference papers and book chapters. His main research interests include interferometric radar imagining, multitemporal and multiscale image analysis, desertification, flooding and soil salinity mapping from remote sensed data, and SAR-nanosatellite development.

**Clinton Aigbavboa** is a Professor of Sustainable Human Settlement, and Construction Management in the Faculty of Engineering and the Built Environment, University of Johannesburg, South Africa; with a multidisciplinary research focus on the built environment. Before entering academia, he was involved as quantity surveyor on several infrastructural projects, both in Nigeria and South Africa. He holds a PhD in Engineering Management and has published over 500 research papers in his areas of interest. He has extensive knowledge in practice, research, training and teaching. His research interest are situated in the fields of sustainable human development, with the focus on: sustainable housing regeneration (urban renewal and informal housing), Life Cycle Assessment in the Construction Industry, remanufacturing, leadership in low-income housing, sustainable construction thinking, biomimicry, digitalisation of the construction industry, infrastructure development, construction industry development, construction and engineering management, construction education, construction industry development and research methodological thinking and paradigm, post-occupancy evaluation and green job creation. He is also an author of five research books that were published with Springer Nature and CRC Press. He is currently the editor of the Journal of Construction Project Management and Innovation (accredited by the South Africa Department of Higher Education and Training) and has received national and international recognition in his field of research. He is currently serving as the Vice Dean: Postgraduate Studies, Research and Innovation in the Faculty of Engineering and the Built Environment.

**Ahmed Bawa** currently holds the position of Chief Executive Officer of Universities South Africa (USAf). Until the end of April 2016, he was Vice-Chancellor and Principal of Durban University of Technology. Before that, until August 2010, he was a faculty member at Hunter College in the City University of New York where he was a member of Department of Physics and Astronomy until August 2010. During this period, he was also Associate Provost for Curriculum Development at Hunter College. During this time he also taught at the Graduate Centre, City University of New York. He has served as the Program Officer for Higher Education in Africa with the Ford Foundation and during this time led and coordinated the Foundation's

African Higher Education Initiative. Ahmed Bawa holds a Ph.D. in Theoretical Physics from the University of Durham, in the UK. He has published in the areas of high energy physics, nuclear physics, higher education studies and in the area of science and society. He is Fellow of the Royal Society of South Africa as well as the Academy of Science of South Africa.

**Philippe-Edwin Bélanger** worked at Fonds de recherche du Québec - Nature et technologies, overseeing the organization's scholarship programs and France-Québec partnership from 2002 to 2012. He was appointed director of graduate and postdoctoral studies at Institut national de la recherche scientifique (INRS) in 2012. A very active member of Québec and Canadian professional associations, Philippe-Edwin Bélanger was president of Association des administratrices et des administrateurs de recherche universitaire du Québec (Québec Association of University Research Administrators) in 2013. During that time, he defended the importance of maintaining public investment in university research. Since July 2014, he has been president of Association des doyens des études supérieures au Québec (Québec Association of Deans of Graduate Studies). As president he conducted, in collaboration with Ministère de l'Enseignement supérieur du Québec (Ministry of Higher Education), Research Funds of Québec, and Francophone Association for the Advancement of Knowledge, the first Québec survey on Ph.D. competencies for the purposes of enhancing programs, improving the professional integration of graduates, and highlighting the contribution of doctoral students to the development of society. Since November 2015, he has been a board member of the Canadian Association for Graduate Studies (CAGS) and President of the Canadian Association of Postdoctoral Administrators (CAPA) steering committee. In April 2018, he was appointed in President elect of the Northeastern Association of Graduate Schools (NAGS).

**Paolo Biscari** is Full Professor in Condensed Matter Physics at the Department of Physics of the Politecnico di Milano. He earned his PhD in Physics in 1993 in Pisa, at the Scuola Normale Superiore. In the last ten years, the professional life of Paolo Biscari has been strongly interlaced with doctoral education. He contributed to create, and then directed, the PhD Programme in Mathematical Models and Methods in Engineering. He also supervised the doctoral researches of five PhD candidates in the field of Statistical Mechanics, and Soft Matter Physics. He then moved to the PhD School, the administrative body which coordinates the researches of all the Politecnico di Milano PhD candidates. Since January 2016, he serves the PhD School as Dean. In 2017 he also became an elected member of the Academic Senate of Politecnico di Milano. He is Editor-in-Chief of the European Physical Journal Plus, a Springer international peer-reviewed journal with Impact Factor 2.24, and member of the Editorial Board of the Springer Book Series Unitext in the Mathematics and Physics areas. His present research is focused in the soft matter area, and more specifically in liquid crystals, elastomers, and critical phenomena. He has been Invited Professor at the Universities of Southampton and Minnesota, has published more than 60 research papers in international peer-reviewed journals, three books, and has contributed to approximately 50 international congresses as Invited Speaker. He has directed as PI several research grants and contracts, awarded from both public Institutions and private companies. In 2004, he earned the Bruno Finzi Prize, awarded by the Istituto Lombardo, Accademia di Scienze e Lettere for outstanding researches in Mechanics.

**Freddy Boey** is Senior Vice President (Graduate Education & Research Translation) of National University of Singapore (NUS). A pioneer in the use of functional biomaterials for medical devices, Prof Boey has developed 100 over patents and founded several companies to commercialize his cardiovascular, ocular and surgical implants. His customizable hernia mesh is the first such surgical mesh approved for sale by the US FDA and his most recent company,

Peregrine, has created a nano-based drug delivery system to treat Glaucoma which has been successfully deployed in human trials. Prof Boey holds key appointments on the boards of the Health Science Authority Singapore, School of Science and Technology as well as several nationally-funded research centres, including the Singapore Rail Academy Board and the Government Technology Agency Planning Committee. He has received several prestigious awards, including the Imperial College London Fellowship Award, the 2013 Singapore President's Science and Technology Medal and he is also a recipient of two National Day Awards – the Public Administration medals (Gold and Silver) – from the Singapore government.

**Jani Brouwer** is Director of the Doctoral College and responsible for the growth and strategic development of the University's support and provision for doctoral students across all Ph.D. programmes since 2011. This includes quality assurance and promoting new policies and methods to enable internationalization of doctoral training and the scholarships based on excellence. Before that she worked among others at Chile's National Commission for Scientific and Technological Research (CONICYT) from 2006 to 2011 in two programmes: the Basal Financing Program for Centers of Excellence and in the Graduate Scholarship Programme. She also worked in Bogotá, Colombia as a lecturer in Sociology and Research Methodology at several universities. Jani studied for her undergraduate and postgraduate degrees in Social and Behavioural Sciences at the Vrije Universiteit and the Universiteit of Amsterdam where she obtained an M.Sc. and Ph.D. in Education. Currently, Jani is a member of the Steering Committee of the Researcher Engagement Cluster of the global network of research-intensive universities "Universitas 21" and member of the group Deans and Directors of Graduate Schools.

**Hans-Joachim Bungartz** is a full professor of informatics and mathematics at TUM and holds the Scientific Computing chair in the Informatics Department. Dr. Bungartz earned degrees in mathematics and informatics and a PhD as well as his habilitation in informatics, all from TUM. He became associate professor of mathematics at University of Augsburg, full professor of informatics at University of Stuttgart, and returned to TUM in 2005. Since 2008, he has been affiliated with the Department of Mechanical Engineering at University of Belgrade, Serbia. Since 2013, Dr. Bungartz has served as both Dean of Informatics and TUM Graduate Dean, heading TUM Graduate School with responsibility of doctoral education TUM-wide. He is a member of TUM's Extended Board of Management. Dr. Bungartz has served or serves on several editorial boards, and he was a member of the scientific directorate of Leibniz Institute for Informatics Schloss Dagstuhl. He is involved in various national and international review and advisory board activities. In 2011, he was elected chairman of the German National Research and Educational Network (DFN). Furthermore, Dr. Bungartz is a board member of Leibniz Supercomputing Center. In 2016, Dr. Bungartz has been appointed a steering committee member of the Council for Doctoral Education of the European University Association. His research interests are where computational engineering, scientific computing, and supercomputing meet. He works on parallel numerical algorithms, hardware-aware numerics, high-dimensional problems, data analytics, and aspects of HPC software, with fields of application such as computational fluid dynamics. Most of his projects have been interdisciplinary ones. As an example, he coordinates DFG's Priority Program Software for Exascale Computing.

**Karen Butler-Purry** is the Associate Provost for Graduate and Professional Studies (APGPS) at Texas A&M University, a position she has held since 2010. In addition, Butler-Purry is a professor in the department of electrical and computer engineering, having served at all faculty levels beginning with an initial appointment as visiting assistant professor of electrical engineering in 1994. Dr. Butler-Purry has vast experiences in graduate education as a faculty member,

administrator, researcher and program leader. From 2001-2004, she served as Assistant Dean for Graduate Programs in the College of Engineering and served as Associate Department Head in the Electrical and Computer Engineering Department from 2008-2010. Further, Dr. Butler-Purry has directed several fellowship and education projects promoting recruitment, retention and advancement of graduate students in STEM fields. Additionally, she has served in many capacities on committees for the college, university, and professional societies. Dr. Butler-Purry developed a successful research program with funding from federal agencies such as NSF and ONR, and industry funding from electric utility companies. She has supervised and funded over 40 graduate and 65 undergraduate research students.

**Carlos Gilberto Carlotti, Jr., MD, PhD** graduated from Ribeirao Preto Medical School at the University of São Paulo, Brazil. His specialty is neurosurgery and main research interest areas are brain tumor molecular features and epilepsy surgery. He made a post-doctorate at the Brain Tumour Research Centre, University of Toronto, Canada. He is currently Full Professor at the Ribeirao Preto Medical School of University of São Paulo and he served as Dean and Director of the University Hospital. Since 2016 Prof. Carlotti is the Provost of Graduate Studies of University of São Paulo, that award 3.000 PhD/year, and worked to enhance the quality of graduate programs, using internationalization as the main tool.

**Mee-Len Chye**, the Wilson and Amelia Wong Professor in Plant Biotechnology, is Dean of the Graduate School at the University of Hong Kong. She completed her B.Sc. at the University of Malaya, and Ph.D. on a Commonwealth Scholarship at the University of Melbourne. Following postdoctoral training in Plant Molecular Biology at the Rockefeller University (New York) and the Institute of Molecular and Cell Biology (Singapore), she joined the University of Hong Kong in 1993 and was promoted to Professor in 2005. She has been awarded an Edward Clarence Dyason Universitas 21 Fellowship (2004/05), a HKU Outstanding University Researcher Award (2006/07), and a Croucher Senior Research Fellowship (2007/08). She serves on the editorial boards of Plant Molecular Biology (Springer), Planta (Springer), Frontiers in Plant Metabolism & Chemodiversity, Frontiers in Plant Cell Biology and Frontiers in Plant Physiology.

**Luc De Nil** obtained a Licentiate degree in Orthopedagogical Sciences from the Catholic University Leuven in Belgium. He completed a Ph.D. degree in Communication Disorders and Sciences at Southern Illinois University – Carbondale, before joining the University of Toronto. Until 2018, he has served as the Vice-Dean Students in the School of Graduate Studies. In that position he has led the revisions of the University's Best Practices Guidelines for Graduate Supervision and has conducted workshops on supervision for graduate faculty members. He also has been actively involved in improving student experiences for graduate students across the university and was a member of the Truth and Reconciliation Indigenous Students working group. Prof. De Nil currently holds the position of Acting Dean of the School of Graduate Studies and Acting Vice-Provost Graduate Research and Education. His research interests focus on studying speech motor learning in children and adults who stutter, as well as using brain imaging to investigate neural mechanism underlying speech fluency in normal and disordered populations, including developmental stuttering, and acquired adult-onset stuttering. He has served as the President of the International Fluency Association and was the Editor-in-Chief of the Journal of Communication Disorders.

**Luke Georghiou** is the University's Deputy President and Deputy Vice-Chancellor. From 2010 to 2017 Luke was responsible for the University's research strategy and its implementation and doctoral training. He continues in his new role to be responsible for business engagement and commercialisation activities. He is active in research and policy advice to governments and

business with current work on innovation management, public procurement and innovation and evaluation of the national demonstrator project for Internet of Things (CityVerve). Luke is a member of RISE, the European Commissioner for Research and Innovation's high-level policy advisory group. He has chaired and been a member of several high-level inquiries and advisory bodies, including being rapporteur of the influential Aho Group report to European leaders, 'Creating an Innovative Europe' which put demand-side innovation policy onto the political agenda. He was Co-Champion of the 2016 Euroscience Open Forum (ESOF), Europe's largest pan-disciplinary science conference. Luke is currently a member of the Board of Directors of Manchester Science Partnerships, the UK's largest science park company and a Non-Executive Director of The Manchester University Foundation Trust, the UK's largest hospital trust. Since 2016 he has chaired the Steering Committee of the European Universities Association Council for Doctoral Education. He was elected to the Academia Europaea in 2011. He has published extensively in leading outlets. He holds a PhD (1982) and BSc from The Victoria University of Manchester.

**Alexander Hasgall** (Dr. phil.), is Head of the EUA Council for Doctoral Education.

Before assuming this position, he coordinated the "Performances de la recherche en sciences humaines et sociales" (CUS-P3) programme of the Swiss University Rectors conference and was based in the University of Geneva. In this role, he was responsible for a collaborative program of all Swiss Universities which explored how the both the quality and the impact of research in the humanities and social sciences can be made visible and how to find new ways of evaluating the SSH. Alexander studied philosophy and history at the University of Zurich and the Free University of Berlin. He received his Doctorate in History at the University of Zurich on the history and discourse of transitional justice in Argentina. For this, he spent several month as a visiting scholar at the Universidad Nacional del General Sarmiento in Los Polvorines, Province of Buenos Aires. Outside of the higher education sector, Alexander acquired different experiences in the NGO-Sector, where he coordinated in Berlin a European network that focused on studying anti-Semitism and other forms of intolerance in Europe and developing strategies for combating it.

**Katherine Hazelrigg** joined the Council of Graduate Students in 2015 as the communications manager. In August of 2017, she became assistant director of communications. Her responsibilities at the Council include website content development and management, social media, media relations, development of print and electronic communications, and the Global Summit. Prior to joining CGS, she was a program assistant and communications coordinator at the Association of Public and Land-grant Universities (APLU), where she managed communications, event planning, projects, and grants in the Office of Research, Innovation, and STEM Policy. Katherine spent several years teaching English 101 and Introduction to Literature courses at the University of Maryland, College Park, while earning an M.A. in English; she received a B.A. in English with a minor in French from The Pennsylvania State University's Schreyer Honors College.

**Nelson Ijumba** is the Deputy Vice-Chancellor responsible for Academic Affairs and Research at the University of Rwanda (UR), and also an Honorary Professor of Electrical Engineering at the University of KwaZulu-Natal (UKZN) (South Africa). His main area of specialization is in High Voltage Systems. He graduated from the University of Dar Es Salaam (Tanzania), with a First Class Honours degree in Electrical Engineering, and obtained his Master's and Doctoral degrees from the Universities of Salford and Strathclyde (UK), respectively. Professor Ijumba is a Senior Member of the Southern African Institution of Electrical Engineers (SAIEE), a Member of the Institute of Electrical and Electronics Engineers (IEEE), a Member of the In-

stitution of Engineering and Technology (IET), a Member of the Academy of Science of South Africa (ASSAf) and a Fellow of the South African Academy of Engineering (SAAE). Professionally, he is a registered Professional Engineer with the Engineering Council of South Africa (ECSA) and a Chartered Engineer of the UK Engineering Council. He has over 30 years of experience in teaching, research, consulting and academic leadership. His research interests are in the areas of power and energy systems, impact of technologies on sustainable development and translation of research outputs into socially relevant innovative products. He has published widely and made presentations at international and local conferences.

**Andrew Kaniki** is the Executive Director: Knowledge Advancement and Support (KAS), National Research Foundation (NRF). The Directorate is responsible for supporting and advancing knowledge in all fields through funding. Prior to joining the NRF he was Professor of Information Science at the then University of Natal (now the University of KwaZulu Natal), and between 2000 and 2002 was Pro-Vice Chancellor and Acting Deputy Vice Chancellor (Academic) at the same university. He taught for several years at the University of Zambia and worked as an Information Science Specialist at Carnegie – Mellon University (USA). He holds a PhD (Pittsburgh, USA), MS (Illinois, U-C. USA) in Information science, and BA (Zambia) degrees. He has attended a number of management and executive development programmes, including the Harvard Business School Executive Leadership Development programme. He has published and presented several scholarly and peer reviewed articles, book chapters, and conference papers. Dr. Kaniki has supervised several doctoral and masters' theses and dissertations. He has served as a member and Chairperson of the National Council for Library and Information Services (NCLIS) 2015 – 2018; President of the Southern African Research and Innovation Management Association (SARIMA) 2003-05; member of the Council on Higher Education (CHE) 2004-2007; the Higher Education Quality Committee – HEQC 2012 – March 2018; DoHET Task Team on Higher Education for development of the National Plan for Post-School Education and Training (2017); and Department of Higher Education and Training (DoHET) Research output evaluation panel 2006 - 2013.

**Helen Klaebe** is the Pro Vice-Chancellor (Graduate Research and Development) for the Queensland University of Technology, where her role is to lead research development and training engagement university wide- across STEM, Health, Education, Law, Creative Industries & Business faculties. Klaebe is also a Professor of Creative Industries (Creative Writing) where her research develops new approaches to participatory public history using multi art form storytelling strategies to engage the community, as well as evaluating the economic, cultural and audience impact of public art programs.

**Paula D. McClain** is Professor of Political Science and Professor of Public Policy and Dean of The Graduate School and Vice Provost for Graduate Education, having moved to Duke from the University of Virginia in 2000. She became Dean on July 1, 2012. She also directs the American Political Science Association's Ralph Bunche Summer Institute hosted by Duke University, and funded by the National Science Foundation and Duke University. A Howard University Ph.D., her primary research interests are in racial minority group politics, particularly inter-minority political and social competition, and urban politics. She is president-elect of the American Political Science Association, past president of the Midwest Political Science Association, past president of the Southern Political Science Association and the National Conference of Black Political Scientists, is a past vice president of the American Political Science Association, served as Program Co-Chair for the 1993 annual meeting of the American Political Science Association, served as Program Chair for the 1999 annual meeting of Midwest



Political Science Association, served as Vice President of the Midwest Political Science Association, served as Vice President and 2002 Program Chair of the Southern Political Science Association, and served as a Vice President and Program Co-Chair of the 2003 International Political Science Association World Congress which was held in Durban, South Africa in July 2003. She is the recipient of numerous awards, most recently the Duke University Blue Ribbon Diversity Award (2012). In 2014, she was elected to the American Academy of Arts and Sciences.

**Liviu Matei** is the Provost of Central European University, a Professor of Higher Education Policy and Director of the Yehuda Elkana Center for Higher Education. His research focus is on governance of higher education. He taught at universities in Europe and the U.S., consulted extensively in the area of higher education policy and coordinated applied policy research projects for the World Bank, UNESCO, OSCE, the Council of Europe, the European Commission, other international intergovernmental and non-governmental organizations, governments/national authorities and universities from Europe and Asia. He is a member of the Board of Trustees of the American University of Central Asia and serves on the editorial board of the Journal of Internationalization of Higher Education. He studied philosophy and psychology at Babeş-Bolyai University Cluj, and Sociology of Higher Education at Bucharest University, Romania. He received his PhD from the latter. He benefited from fellowships at the Institut Supérieur de Formation Sociale et de Communication, Bruxelles, The New School for Social Research (New School University), Université Paris X Nanterre, Université de Savoie, Salzburg Seminar and the Maison des Sciences de l'Homme, Paris.

**Shireen Motala** is the Senior Director of the Postgraduate School within the Research and Innovation Division, University of Johannesburg and Professor in the Faculty of Education, UJ. She is part of the Executive Leadership Group at the UJ. Prior to joining UJ in 2010, Professor Shireen Motala, was the Director of the Education Policy Unit at the University of the Witwatersrand. Her academic qualifications include: a BA (University of Durban-Westville), a B Social Science Honours (University of Cape Town), an MA (University of Warwick), a PGCE (University of London) and a PhD (University of the Witwatersrand) She is currently UJ's representative on the international body, the Council Graduate Schools and participates in the Universitas 21 activities. She has held numerous leadership roles related to Higher Education including: Chairperson of the Education Policy Consortium (2006-2010), Chairperson of the UNESCO South African Commission (2001-2006), and first inaugural president of the South African Research Association (SAERA) (2013-2014). She continues to be an executive member of SAERA. In 2010, she was appointed by the Minister of Higher Education and Training to serve on the Council of Higher Education (CHE) and re-appointed in 2015 to the Council and to the Executive Committee of the CHE. An NRF (National Research Foundation) rated researcher, she has initiated collaborations between universities across Africa and with Asia and Europe, and this has led to the formation of long-term regional and international partnerships. Her research record is substantial and includes publications in journals and books and editorship of local and international journals. Her research interests and expertise have been in the areas of education financing and school reform, access and equity, education quality and the internationalisation of higher education.

**Linda Mtwisha** is a Senior Director for Strategic Initiatives and Administration at the University of Johannesburg. She has over ten years of experience in the research sector and has extensive experience in research management, research capacity development and support. She completed her doctoral studies in proteomics from the University of Cape Town. Subsequently,

she worked as a Post-Doctoral Fellow and senior scientist at the Council for Scientific and Industrial Research of South Africa and a Director at the National Research Foundation (NRF). Before, joining the University of Johannesburg, she was an acting Executive Director for the Institutional Engagement and Partnership Development Directorate of the NRF. Her career experience extends from scientific research, establishment of research platforms, to strategic leadership and management of strategic national research programmes. She serves, as a member of the Academic Board of WorldsView Academy, a private company focused on continuous professional development of Organisation Development (OD) and Human Resources practitioners, the development of cutting-edge OD software and innovative consulting services. She was Chairperson and now board member of the Youth Development Institute of South Africa. Recently, became a co-opted member of the Africa Engagement portfolio, of the Southern African Research and Innovation Management Association.

Linda's qualifications include a Doctoral degree in Biochemistry from the University of Cape Town. She also holds a master's degree in Business Leadership from the University of South Africa. Her passion lies in human capacity development, in enabling young people to reach their full potential.

**Klaus Mühlhahn** studied Sinology at Freie Universität Berlin and National Taiwan Normal University. In 1999, his dissertation earned the “Joachim Tiburtius Award of the Berlin Senate”. After periods at the University of California, Berkeley, the University of Turku in Finland and at the Indiana University Bloomington, United States, he returned in 2010 to Freie Universität Berlin as professor of history and culture of China. He is now deputy director of the Graduate School of East Asian Studies, which opened in 2013, and in 2014 became Vice-President of Freie Universität Berlin. He has published widely on modern Chinese history in English, German, and Chinese. In his book “Criminal Justice in China”, published 2009, he analyzed the criminal justice system and its roots in politics, society and culture. For this oeuvre, he was awarded the same year with the John K. Fairbank-price for East Asian History of the American Historical Association. In his latest monograph from 2017 entitled “Die Volkrepublik China” (The People's Republic of China), he surveys the history of the country, introducing the reader to academic debates on domestic and foreign policy and on the development of China's society, economy, and culture. His forthcoming book “Making China Modern”, to be published by the Harvard University Press in December 2018, rewrites China's history, telling a story of crisis and recovery, exploring the versatility and resourcefulness essential for China's survival as well as its future possibilities.

**Aidate Mussagy** is Biologist and Assistant Professor in Ecology at the Faculty of Science of Eduardo Mondlane University in Mozambique. Mussagy's core area of research is in freshwater ecology and also has some interest in curriculum design and modern teaching methods. Mussagy has held some key positions at Eduardo Mondlane University in Mozambique. She founded the Scientific Journal of the Eduardo Mondlane University and her current position is Editor in Chief of this journal.

**Martin Oosthuizen** is the Executive Director of the Southern African Regional Universities Association (SARUA), an association that promotes regional collaboration in the higher education sector in the SADC. He also serves as the Chief Executive Officer of the Cape Higher Education Consortium (CHEC), which promotes collaboration between the four universities in the Western Cape. Previously, he served as Deputy Vice Chancellor for Teaching and Learning at North West University from June 2011 to June 2017, and as Senior Director of the Centre for Planning and Institutional Development at the Nelson Mandela (Metropolitan) University in Port Elizabeth from

2005. At NWU his areas of responsibility included higher education access, student academic support, academic planning, curriculum development, teaching and learning approaches, educational technology, academic staff development, continuing education and the careers service. Between 1982 and 1998, Martin held positions from Lecturer to Professor in Biblical Studies and Theology at the Universities of Fort Hare (1982 to 1986), Unisa (1987 to 1989) and Port Elizabeth (1990 to 1998), before his appointment as the founding director of the Quality Management Unit at the University of Port Elizabeth in 1999. Martin has been extensively involved in national and institutional projects relating to standards setting, quality assurance and qualifications design in the South African higher education sector. He served on the South African Higher Education Quality Committee from 2012 to 2018 and chaired its Accreditation Committee from 2015 to 2018. He is an international reviewer for the Oman Academic Accreditation Council, and, as an international reviewer, has contributed to various institutional reviews for the Quality Assurance Agency in Scotland. Between 2011 and 2016 he served on the Council of Chief Executive Officers of the Open Education Resources Universitas (OERu), an international organisation that is committed to the development and use of open education resources to improve access and articulation into higher education. Martin has published various articles and presented papers at local and international conferences, mainly in the area of Old Testament theology, and more recently in the field of quality assurance and academic planning in higher education.

**Suzanne Ortega** became the sixth President of the Council of Graduate Schools on July 1, 2014. Prior to assuming her current position, she served as the University of North Carolina Senior Vice President for Academic Affairs (2011-14). Previous appointments included the Executive Vice President and Provost at the University of New Mexico, Vice Provost and Graduate Dean at the University of Washington, and the University of Missouri. Dr. Ortega's masters and doctoral degrees in sociology were completed at Vanderbilt University. With primary research interests in mental health epidemiology, health services, and race and ethnic relations, Dr. Ortega is the author or co-author of numerous journal articles, book chapters, and an introductory sociology text, now in its 8th edition. An award-winning teacher, Dr. Ortega has also served on a number of review panels for NSF and NIH and has been the principal investigator or co-investigator on grants totaling more than \$6 million in state and federal funds. Dr. Ortega serves or has served on a number of professional association boards, committees, including, the Executive Boards of the Council of Graduate Schools, the Graduate Record Exam (GRE), the National Academies of Science Committee on the Assessment of the Research Doctorate, the National Science Foundation's Human Resources Expert Panel, the North Carolina E-learning Commission, the North Carolina Public School Forum, the UNC TV Foundation, and the UNC Press Board of Governors.

**David G. Payne** is the Vice President and COO of the Global Education Division at ETS. David heads the GRE® and TOEFL® programs, as well as higher education assessments such as the ETS® Major Field Tests, ETS® Proficiency Profile and the SuccessNavigator® assessment. He also led efforts to create the comprehensive HEIghten® assessment suite for general education student learning outcomes. Payne works closely with the GRE and TOEFL Boards; undergraduate and graduate education organizations; and colleges, universities and public education systems. He also helps identify assessment needs in the higher education and professional markets — both domestic and international — and develop external relationships. Payne is also Chair of ETS Global BV, ETS's for-profit subsidiary, which has offices throughout Europe and the Middle East. ETS Global BV oversees ETS Assessments (Beijing) Ltd. and ETS Educational Services (India) Private Limited. Prior to joining ETS in 2003, Payne was Vice Provost and Dean of the Graduate School at SUNY Binghamton and was a tenured professor in the department of psychology. He earned bachelor's and master's degrees in experimental psychology from SUNY Cortland and a Ph.D. in cognitive psychology from Purdue University. He is a Fellow of the

American Psychological Association and the Association for Psychological Science. He has published five books, nine book chapters and more than 100 articles, technical reports and papers.

**Sally (Sarah) Pratt** became Vice Provost for Graduate Programs at the University of Southern California in 2010, after serving for eight years as Dean of Academic Programs in USC Dornsife College. She is responsible for PhD, master's and graduate certificate programs across the humanities, sciences, and social sciences, as well as seventeen professional schools, including engineering, business, public policy, social work, health sciences, and cinema, among others. She serves as a member of the Board of Directors of the Council of Graduate Schools and currently serves as President of the Executive Board of the AAU Association of Graduate Schools. She is interested in a wide range of issues, including increasing diversity in graduate study, academic professional development, ways of addressing sexual misconduct, and the nature and use of the PhD degree. She has served on the accreditation committee of the Western Association of Schools and Colleges. Within USC, she has increased efforts to support diversity and academic professional development and reduced the teaching load for graduate students to allow more time for study and decrease time to degree. She has implemented a system of PhD Program Progress Data and established a group called Friends of the Graduate School made up of representatives from academic departments, financial aid, campus security, health services, and other offices. She received her bachelor's degree from Yale and her PhD from Columbia. Her research focuses on Russian poetry. She and remains active in the field of Slavic Studies.

**Adham Ramadan** is a Professor of Chemistry, a Fellow of the Royal Society of Chemistry and a Member of the American Chemical Society. He was appointed Dean of Graduate Studies at The American University in Cairo (AUC) in January 2014. He served as Chair of the Department of Chemistry, AUC, from 2010 to 2013. As Dean of Graduate Studies, he initiated a university-wide review of the graduate admissions system and the graduate fellowship award system, as well as worked on the enhancement of university-wide metrics for assessing the performance of graduate programs. He updated university-level coordination of graduate programs, leading to the development of a Graduate Studies Manual. He has recently been involved in the strategic development and implementation of blended and online learning for graduate programs, Strategic Enrollment Management for Graduate Studies, as well as Graduate Studies opportunities for refugees.

**Christopher Sindt** is Provost and Dean of the Graduate School at Lewis University. From 2000-2018, Sindt was a professor and administrator at Saint Mary's College of California, serving as program director of the MFA Program in Creative Writing, the associate dean of the School of Liberal Arts, the dean of the Kalmanovitz School of Education, the vice provost for graduate and professional studies, and the vice provost for academic affairs where he managed a wide range of areas, such as accreditation, career and professional development, community engagement, educational effectiveness, faculty development, graduate education, institutional research, international studies, sponsored research, student success and undergraduate education. In 2011-2012, Sindt was selected as an American Council on Education Fellow, the nation's premier training program for university administrators. He currently serves as chair-elect of the Board of Directors of the Council of Graduate Schools and Vice President of the Board of the Directors of the Community of Writers at Squaw Valley. From 2015-2017, he served on the Board of Directors of Reading Recovery of North America. Sindt earned his M.A. and Ph.D. in English from the University of California, Davis, and a B.A. in English from the University of California, Los Angeles. He has been the recipient of numerous awards and fellowships for his poetry, including the James D. Phelan award and fellowships at the Macdowell Colony and the Blue Mountain Center. He is the author of two collections of poetry, *The Bodies*, and most recently, *System and*

Population. In addition to poetry, his research interests include the literature of California, and environmental literature. He is the co-director of SMC's Center for Environmental Literacy.

**Imelda Whelehan** has been Dean, Higher Degree Research at the Australian National University (ANU) since January 2017. Prior to this she was Pro Vice-Chancellor Research Training at the University of Tasmania in Australia. She moved to Australia in 2011 after working for over twenty years in UK higher education. She continues a modest amount of research in her specialisms of feminism and literary adaptation and is currently writing a book on post-Second World War film adaptations.

**Paula Wood-Adams**, a Professor of Chemical Engineering, was appointed Dean of Graduate Studies of Concordia University in September 2013. While widely recognized for her academic achievements, she is also known as a strong leader, supervising over 25 graduate students and postdoctoral researchers. As an administrator, she has provided strategic and operational direction to various functions of graduate studies at Concordia, focusing her attention mainly on new curriculum, professional development and program support, and recruiting new, promising, graduate students. She has been an active member of provincial and federal funding agency peer-review committees including, the National Sciences and Engineering Council of Canada (NSERC) and the Fonds de recherche du Québec (FRQ). She has also contributed numerous articles to scientific journals on her research focus: viscoelasticity, polymer science and rheology, and has received over \$2.5M in grants to support her research. Dr Wood-Adams also is the current President of ADÉSAQ, the Quebec association of deans of graduate studies. Professor Wood-Adams joined Concordia in 2001 as an assistant professor in Mechanical Engineering and in that same year received the NSERC University Faculty Award which was renewed in 2004. She has also received a Canada Foundation for Innovation New Opportunities infrastructure grant which allowed her to set up the Laboratory for the Physics of Advanced Materials. In 2006, she became the graduate program director of Mechanical and Industrial Engineering, was awarded a Concordia University Research Chair, and became Visiting Professor of Chemical Engineering at Kasetsart University, Bangkok, Thailand. She obtained her BSc in Chemical Engineering from the University of Alberta and her MEng and PhD in Chemical Engineering from McGill University.

**Fiona Zammit** is the Executive Officer of the Australian Council of Graduate Research (ACGR) – the national peak body for Deans, Directors and Pro Vice Chancellors with institutional responsibility for Graduate Research. She is also director of her own company: Edu Management and Consulting. An expert in education management, policy, strategy and operations Fiona has over 30 years of experience in the education industry and 20 years in universities. She has held key university wide leadership roles at a two of Australia's leading research-intensive institutions: Melbourne and Monash including nine years as General Manager of two Graduate Research Schools and six years as a Principal Strategic Advisor in Research Training for RMIT University. Her expertise in the development and management of research training policy and strategy at university and national levels is complemented by her extensive national and international connections (including several terms as Executive Officer of the Australian Council of Deans and Directors of Graduate Studies DDOGS) and current service as the Executive Officer of the Australian Council of Graduate Research. In these roles she works closely with member universities and government agencies to contribute to and respond to federal initiatives and policies. Fiona has developed and implemented numerous new operational changes and policy and strategy positions at institutional and national levels and has travelled extensively to develop her skills and knowledge of the university sector and its management. She has presented at national and international conferences on research training management.

**Dongxiao “Don” Zhang** is the Executive Dean of Graduate School and Dean of College of Engineering at Peking University, Beijing, China. He is an Honorary Member of Society of Petroleum Engineers, a Fellow of Geological Society of America, and a Member of the U.S. National Academy of Engineering. He had held positions as Senior Scientist at Los Alamos National Laboratory, Miller Chair Professor at the Department of Petroleum and Geological Engineering at the University of Oklahoma, and Chair Professor at the University of Southern California. He has authored 2 books and published over 170 peer-reviewed papers. He earned both his Master’s degree and Ph.D. in hydrology and water resources in 1992 and 1993, respectively, from the University of Arizona. Professor Zhang is an internationally well-known expert in unconventional oil and gas production, groundwater hydrology, and geological carbon sequestration, whose research achievements in stochastic modeling, numerical simulation, inverse modeling and machine learning are widely adopted by his peers. Professor Zhang has been an associate editor for SPE Journal, Water Resource Research, Advances in Water Resources, SIAM Multiscale Modeling and Simulation, Journal of Computational Geosciences, Journal of Natural Gas Science and Engineering, and Vadose Zone Journal. He has served as a panelist on the RCUK Review of Energy, UK Research Councils, a member of US National Research Council’s Committee on New Research Opportunities in the Earth Sciences, and a council member of World Economic Forum Global Agenda Council on New Energy Architecture.

**Aoying Zhou** is currently vice president of ECNU, president of the School of Postgraduates, a professor with School of Computer Science and Software Engineering, a Ph. D. supervisor, and a member of the 7th State Council Discipline Appraisal Group. Zhou received a bachelor’s degree and a master’s degree in computer application in Chengdu Science and Technology University, which has been renamed Sichuan University, in 1985 and 1988, respectively. From 1988 to 1990, he worked as an assistant professor in computer in the university. After receiving a Ph. D. degree in computer science in Fudan University in 1993, he stayed on to teach and was promoted to be an associate professor in Fudan in May 1995 and professor in 1997. He became a Ph. D. supervisor in computer software and theory in January 1998. Between March 1996 and July 2002, he served as vice director of the Faculty of Computer Sciences before being promoted to be the director. In 2005, he went to the University of California, Berkeley in the United States as a visiting scholar, financially supported by the “Berkeley Scholar” project. He was transferred to work in ECNU in February 2009, taking the posts of vice dean of the School of Computer Science and Software Engineering, executive vice dean of the school, dean of the School of Data Science and Engineering, and director of the Cloud Computing and Big Data Research Institute. He became dean of the School of Graduates in July 2015 and vice president of ECNU this June. Zhou is an expert in the fields of data management and application research, with a keen interest in web data management, data-intensive computing, in-memory cluster computing, big data benchmarking and performance optimization.





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