The 4th Industrial Revolution and the future of the University

UNIVERSITY OF JOHANNESBURG | 9 – 11 OCTOBER 2019
The Future won’t wait. We’re Creating Tomorrow.

To us at the University of Johannesburg, “The Future. Reimagined.” is not a line under our logo. It’s a daily challenge. It’s what motivates us to integrate the 4th Industrial Revolution into everything that steers Africa to a place of intellectual leadership.

Creating Tomorrow is active not passive. It’s a collection of minds coming together to make change happen and we’re leading the way. So, when you think of the University of Johannesburg, think of it as more than just a world class, higher education facility. Think of it, as the place where tomorrow is being created.

Bringing U21 Educational Leaders Together. The University of Johannesburg is delighted to be hosting the 2019 U21 Educational Innovation Leadership Symposium. It will bring university educational leaders from around the world together, to share our imagining of the future, our exploring of the 4th Industrial Revolution and the Future of the University.
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8 OCTOBER 2019

13:00 – 17:00 Pre-symposium meeting of the U21 Educational Innovation Steering Group with light lunch (conference hotel)
18:30 Informal dinner arrangements for symposium participants beyond the EISG and symposium organizing committee

9 OCTOBER 2019

12:00 Coach: Hotel to UJ campus
12:30 Buffet lunch
13:30 Welcome and Opening Address
   Prof Tshilidzi Marwala, Vice-Chancellor and Principal, University of Johannesburg (UJ)
14:00 U21 Opening Educational Leadership Symposium
   Prof Bairbre Redmond, U21 Provost
   Prof Kathy Armour, Chair, U21 Educational Innovation Cluster Chair
14:15 Plenary 1: Naledi Pandor, Minister of International Relations and Co-operation, South Africa
   Questions and discussion
15:00 Theme 1: Future Configurations of ‘The University’
   Participant 1: Zac Ashkanasy, Principal – Nous Group
   Participant 2: Prof Rory Ryan, UJ
   Questions and discussion
16:00 Comfort break
16:15 Meeting Groups: Theme 1
17:15 Coach departs for hotel
18:45 Coach departs to venue (shopping mall) with several restaurants
21:00 Coach departs for hotel
10 OCTOBER 2019

08:30  Coach departs from hotel to UJ campus
09:00  Plenary 2: Prof Sian Bayne, University of Edinburgh
Questions and discussion
09:45  Theme 2: Future Teaching and Learning Configurations
       Participant 1: Prof Thea de Wet, UJ
       Participant 2: Prof Gregor Kennedy, University of Melbourne
Questions and discussion
10:45  Tea
11:00  Meeting Groups: Theme 2
11:45  Theme 3: Future Teaching and Learning Configurations
       Participant 1: Dr Maha Bali, American University in Cairo
       Two short presentations – two young academics at UJ
Questions and discussion
12:45  Lunch
13:45  Meeting Groups: Theme 3
14:30  Theme 4: Future Curricula and Accreditations: ‘Shape and Size’
       Participant 1: Prof Ricky Kwok, University of Hong Kong
       Participant 2: Prof Ting-Chuen Pong, Hong Kong University of Science & Technology
Questions and discussion

15:30 Meeting Groups: Theme 4 and preparation for group reports
16:30 Coach departs for hotel
18:15 Coach departs for conference dinner
18:45 Conference dinner
20:15 Coach departs for hotel

11 OCTOBER 2019

08:30 Coach departs for campus
09:00 Plenary 3: Sally Jeffery, Global Education Network Leader – PwC Middle East

Questions and discussion

10:00 Refreshments
10:30 Group Reports
Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
11:30 Summary
Prof Kathy Armour and Prof Bairbre Redmond
12:30 Closing
Prof Angina Parekh, Deputy Vice-Chancellor Academic, UJ
13:00 Lunch
14:00 Departure
Professor Tshilidzi Marwala is an accomplished scholar with multi-disciplinary research interests that include the theory and application of artificial intelligence to engineering, computer science, finance, social science and medicine. He has an extensive track record in human capacity development and has published 15 books on artificial intelligence. Professor Marwala is the Vice-Chancellor and Principal of the University of Johannesburg. Prior to this he was the Deputy Vice-Chancellor for Research and Internationalisation and the Executive Dean of Engineering and the Built Environment - both at the University of Johannesburg. He was recently appointed as Deputy Chair of the Presidential Commission on the 4th Industrial Revolution.
PRINCIPAL
NOUS GROUP

Zac is an award-winning Principal with Nous Group - a global management consultancy with a focus on higher education and he brings with him, close to 25 years of business and consulting experience. This includes working with tertiary institutions in the UK, USA, Australia and Asia. Zac works closely with Vice-Chancellors and their senior leadership teams on key institutional questions. Examples include; the scale and focus on an institution, research performance, contemporary teaching and learning models, and student experience and supports.

Zac’s work combines expertise in business strategy, organisational design and innovation with the fostering of productive interactions between people. Executives and staff value his provocative, practical mind-set and engaging nature. Zac, who currently resides in the UK, won “Most Client Focused Management Consultant” in the 2015 Australian Financial Review awards.

PRESENTATION FOCUS

It seemed like a flick of the switch. Suddenly most, but not all, people in the world were connected through technology. And, communication between organisations and consumers became two-way and in real time. Higher education has not been immune to this. In fact, institutions are increasingly embracing bold new ways in which to engage students through technology. But what do students really want from their education institution? How far can this technology push go? Are we seeing the end of the traditional campus? Will education 4.0 challenge all assumptions we have about how education is delivered and consumed?

Join Zac when he tries to tackle these questions and consider the implications for higher education institutions.
Professor Rory Ryan spent his early academic years as a literary theorist, absorbed by the idea of dismantling prevailing Anglo-American methodological orthodoxies using French ‘post-structuralism’. Later, his interest in theory led to inquiry into the claims, registered by literary studies, to disciplinarity, which he found to be weak. His research has also focused on the novels of Virginia Woolf, and the occult system informing the major poems of WB Yeats. More recently, his interests include the impact of AI and automation on work, capital and society. He has served as Dean of the Faculty of Humanities at the University of Johannesburg, where he currently serves as Executive Director Academic Development and Support.

PRESENTATION FOCUS
Imagining the future of universities might require that we view what they do, rather than what they are. This perspective foregrounds the acts of exchange – principally of accreditations for money – that are performed, rather than focusing on universities as entities with inherent value. As the market for accreditations becomes increasingly customer-focused, providers of accreditation become more numerous and accreditations become more ‘bespoke’, resulting in a fragmented and more complex system of exchange. The better universities are able to understand the dynamics of value-exchange, it is reasonable to assume that the better they will be able to anticipate and adapt to change.
Professor of Digital Education and Assistant Principal for Digital Education
University of Edinburgh

Professor Sian Bayne holds a Personal Chair in Digital Education at the University of Edinburgh. She is also University-wide Assistant Principal for Digital Education, a position held since 2016, and Director of Education for the Edinburgh Futures Institute (https://efi.ed.ac.uk/). Professor Bayne is Director of the Centre for Research in Digital Education in the School of Education (www.de.ed.ac.uk) and established the successful, online MSc in Digital Education programme (online.education.ed.ac.uk).

Her main research focus is on the future of teaching in higher education, interdisciplinary approaches to theorising and researching digital education, and digital pedagogy. She has held grants from the UK Research Councils, the European Commission, NESTA, the Royal Society of Edinburgh and the British Academy. She has published widely in peer-reviewed journals in her field, has co-edited two books and is an executive editor of the journal, “Teaching in Higher Education”. Professor Bayne has given many keynotes and invited talks internationally and with colleagues, has authored the “Manifesto for Teaching Online” (onlineteachingmanifesto.wordpress.com).

Plenary Focus – Near Future Teaching:
Designing a Values-Based Future for Digital Education

Within universities there is a growing trend to apply futures and design thinking to teaching and learning, often as a way of understanding how digital shifts are affecting education. These initiatives tend to be characterised by their focus on speculative, big ideas, and by collaborative approaches which engage with as wide a group of people as possible.

At the University of Edinburgh we are applying “futures” work to digital education. Our aim is to enable a wide conversation among students and staff around how we would like to see digital education grow over the coming decades. From that we wish to build a vision for the university which balances technological change with the values of our academic and student body.

In this talk I will discuss how we went about co-designing the future with a large, diverse academic and student body. By sharing lessons from our work, I will argue that academic communities need to be active in defining a preferred future according to our values, at a time when rapid technological change is often assumed to be driving the way we teach and learn.
Professor Thea de Wet is an anthropologist and the Senior Director at CAT. The Centre is an innovation and support hub for existing and emerging technologies to support online and blended teaching and learning. Recently Thea completed a project on Blended Learning and the #FeesMustFall student movement with colleagues from four South African universities and an investigation of the challenges rural students face when coming to university.

**PRESENTATION FOCUS**
The 4th industrial revolution will bring an end to “the university” as we know it. That much we can be sure of. In the context of profound technological and social changes, academics and university leaders have an opportunity to rethink the future shape and format of universities. But there are big challenges. How would it be possible for institutions to keep their roles as free (and safe) environments for access, exchange and creation of knowledge? Will they succumb to “platform capitalism” and become “platform universities”? And, how will universities, particularly in the Global South, be able to create socially just physical and online learning and teaching spaces without giving in to the grand promises and temptations of technologies that could track movement and behaviour in and out of the classroom?
Gregor leads the University's strategy in teaching, learning and assessment, curriculum innovation, educational technology and learning analytics, and the use of physical and virtual space. Gregor has two decades of experience in the fields of educational technology and higher education, and leads the educational technology research group within the Melbourne CSHE.

PRESENTATION FOCUS – WHAT (KIND OF EDUCATOR) DO YOU WANT TO BE WHEN YOU GROW UP?

As talk of the Fourth Industrial Revolution reaches something of a crescendo, it is useful to reflect on the potential implications for universities’ curriculum offer generally, and for teaching, learning and assessment practice specifically. Commentaries about the rise of automation, the impact of artificial intelligence, and unknown jobs of the future are provocative for university-based education as they raise questions about the value of discipline-based knowledge, the need for skills development and graduate employability.

In this presentation I will touch briefly on ideas about how Universities might (need to) respond to an unknown future both in terms of curriculum configurations and pedagogical practice. I will suggest the obvious; that this is a complex landscape for Universities to negotiate. But I will also provide some key elements of a structured response to the crescendo which, when fully considered, challenge (U21) universities to articulate what kind of educational institutions they want to be, and for whom.
Maha Bali has been a faculty developer in the Center since 2003. She teaches digital literacies and intercultural learning, and co-developed an accompanying open component curriculum called, “Equity Unbound”. http://unboundeq.unboundeq.creativitycourse.org

Maha is an open and connected educator who holds a PhD in Education from the University of Sheffield, UK. She is the co-founder of the Virtually Connecting movement, an editor at the journal Hybrid Pedagogy and editorial board member of Learning, Media & Technology, Teaching in Higher Education, The Online Learning Journal, The International Journal of Educational Technology in Higher Education and the Journal of Pedagogic Development. She blogs at blog.mahabali.me and Tweets at @bali_maha

PRESENTATION FOCUS
In this talk, I argue that university teachers and adult learners of the future will need more and more opportunities for learning that are transformative for them - where they can benefit from the flexibility and participatory opportunities of open and connected learning. I will share some existing forward-looking approaches to doing so, and explore ways of considering the equity of these opportunities and processes for different learners and educators.

My talk will build on and extend this publication:
Professor Kwok is assisting the Vice-President and Pro-Vice-Chancellor of Teaching and Learning in various technology-enriched learning initiatives, some of which were funded by the Hong Kong Jockey Club Charities Trust and the UGC. Ricky makes things happen together with his 60+ teammates under the new Department called, “TELI” (Technology-Enriched Learning Initiative) that he founded in October 2015.

**PRESENTATION FOCUS**

In this session, Ricky Kwok will share the HKU experience of using different strategies in implementing classroom active learning tasks, based on gamification e.g. AR/VR, chatbot and conventional board games. Through such unconventional activities, students' learning would become a highly motivated experience, comprising of effective communication, collaboration and competition - yet somewhat oblivious to the credits involved. Ricky will also share his plans of incorporating more AI in such active learning tasks with the objective that students' “AI literacy”, would be enhanced so as to hopefully better prepare them for their AI-proliferated future.
PROFESSOR OF COMPUTER SCIENCE & ENGINEERING
HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY (HKUST)

Professor Ting-Chuen Pong is a founding faculty member of HKUST, where he had served as Acting Provost, Senior Advisor to the Executive Vice-President & Provost, Associate Vice-President for Academic Affairs, Director of the Center for Engineering Education Innovation and Associate Dean of Engineering. He was also an Academic Research Advisor for the Hong Kong University Grants Committee (UGC) from 2010 to 2012. He is currently a member of the Quality Assurance Council of the UGC and Chairman of the Qualifications and Accreditation Committee of the Hong Kong Council for Accreditation of Academic and Vocational Qualifications. Before joining HKUST, Professor Pong was an Associate Professor of Computer Science at the University of Minnesota. He received his PhD in Computer Science from Virginia Polytechnic Institute and State University in 1984.

Professor Pong’s research interests include computer vision, multimedia computing and IT in Education. He was a recipient the HKUST, “Excellence in Teaching Innovation Award” in 2001 and in 2014, he led the HKUST team in the Wharton-QS Stars Awards Competition and was the winner of the, “Natural Sciences Award” and runner-up of the, “Hybrid Learning Award”.

PRESENTATION FOCUS

Recent advancements in digital technologies have enabled the development of new pedagogies that transcend the physical boundaries of brick and mortar educational institutions. The convergence of such technological advancements and pedagogical innovations has led to transformative changes in education. One such example is the launching of MOOCs in 2012. The impacts of MOOCs go beyond just the offering of courses and content. New pedagogies and academic credentials have been introduced based on MOOCs. MOOC platforms also allow vast amounts of data to be collected on the study patterns of diverse groups of students from around the world. Learning analytics on MOOCs allow teachers to better understand how students learn and how the delivery of teaching and learning can be improved. In the presentation, I will share HKUST’s experience in using MOOCs for offering credit bearing programs and using learning analytics to enhance the learning experience of students on and off campus through blended and experiential learning.
Sally is based in Dubai and leads PwC’s global education and skills practice. She has a broad range of strategic and operations consulting experience across all the sectors of education. Sally has worked for over 20 years as a strategy consultant with a Big Four Firm and has worked extensively across the US, Europe and the Middle East. Originally with a background in healthcare consulting, Sally is now driving the development of PwC’s education service offering including; transformational services for higher education, capacity expansion and quality improvement services for primary and secondary education and the development of new types of applied degree programmes that meet employer needs in developing markets. Sally has been a judge for the past two years on the “3-minute Thesis” for U21, and leads the alliance between PwC and U21. She also developed and coordinated the Innovation Challenge featuring PwC’s “Workforce of the Future” research - a competition that invited students to comment on how they would survive and thrive in the future world of work. Sally has a keen interest in helping to bridge the gap between the competencies CEO’s are looking for in the future, and the approach being adopted by today’s educators. She has an undergraduate degree in Business Administration from Loughborough University, an MBA from the Carlson School of Management, University of Minnesota, and an MSc in Applied Psychology from the University of Liverpool.

PLENARY FOCUS – WORKFORCE OF THE FUTURE AND THE PREPAREDNESS OF GLOBAL CHROS

The world today is changing at an unprecedented pace, brought about by a whole set of intertwined, large-scale trends, which include demographic changes, shifts in global economic power, natural resource consumption patterns and rapid urbanisation, among others. But, by far the most dramatic changes, are happening in the fields of technology, digitisation and science, where both the rate of change itself, and overall disruption, are exponential. The presentation is focused on findings from interviewing over 1200 global CHROs and HR directors across 79 countries on their readiness to confront workforce challenges in the future. Although globally the level of consensus on the key issues is high, the level of readiness varies by region and is likely to impact the flow of talent and salary levels for future graduates. The presentation concludes with a discussion on what educators can do to support students and employers in their struggle to get ahead of the talent agenda.
Prior to Professor Parekh taking up the position at UJ, she was Special Advisor on Higher Education to the Minister of Education. During her years in government, she headed the restructuring and transformation of South Africa's higher education system through mergers and incorporations. She also contributed significantly to higher education policy formulation, including the National Plan for Higher Education, the Language Policy for Higher Education, and the Higher Education Qualifications Framework. Professor Parekh served on several ministerial task teams, including Chair of the Ministerial Working Group on the establishment of a National Higher Education Information and Applications Service for South Africa. She has held several academic appointments, including Chair of the Department of Psychology at University of KwaZulu-Natal and was a founder member of the 1st Centre for Population Studies and Reproductive Health in Africa. She is a standing member of the QS-Maple International Academic Advisory Committee and member of its Scientific Technical Review Committee, a member of the Board of the Council on Higher Education and Chair of its Higher Education Quality Committee. In addition, she serves on USAf’s Teaching and Learning Strategy Group.
In 2005 three famous institutions became one.

MORE ABOUT THE HOST INSTITUTION –
THE UNIVERSITY OF JOHANNESBURG, SOUTH AFRICA

Technikon Witwatersrand, Vista University and Rand Afrikaans University merged to form the University of Johannesburg, or as we affectionately call it – UJ.

But this was more than a name-change. This was the beginning of an idea of what a future University should be. We didn't just take on the name of the city that we’re in, we took the name of the economic hub of Africa. A vibrant and dynamic city that shares our pace and energy and, like us, is paving the way in a new South Africa. This is how it all started and when we began to reimagine the future.

TODAY, UJ CONSISTS OF MORE THAN 600 000 SQUARE METERS OF BUILDINGS, WHICH INCLUDES TEACHING, RESEARCH, ADMINISTRATION, SUPPORT, SPORT, RECREATIONAL AND LIVING SPACE ACROSS FOUR CAMPUSES.

Auckland Park Bunting Road Campus, Auckland Park Kingsway Campus, Doornfontein Campus and Soweto Campus make up the University of Johannesburg. Thanks to these facilities, we can give students the chance to reimagine the future in a variety of different faculties: the College of Business and Economics, the Faculty of Art, Design & Architecture, the Faculty of Education, the Faculty of Engineering and the Built Environment, the Faculty of Health Sciences, the Faculty of Humanities, the Faculty of Law and the Faculty of Science.

U21 EDUCATIONAL INNOVATION LEADERSHIP SYMPOSIUM – 9-11 OCTOBER 2019
JOHANNESBURG IS THE SECOND LARGEST CITY IN AFRICA, WITH MORE THAN 5 MILLION PEOPLE LIVING IN THE CITY OF JOHANNESBURG. JOBURG, OR JOZI AS SOME PREFER TO CALL IT, OFFERS VISITORS AN EXPERIENCE AS UNIQUE AND DIVERSE AS THE CITY ITSELF.

Whether you are on business, in search of a cultural encounter, an adrenaline rush or simply want to relax and unwind for a few days, the city of Johannesburg has everything you’re looking for and more. We have put together a combination of possible excursions for your choosing and booking. Once you have selected, booked and paid for your excursion, please forward your confirmation to Mr Ismail Badrudin at ibadrudin@uj.ac.za

HERE ARE SOME OF THE EXCURSIONS THAT THE GUEST CAN PARTAKE IN:

Apartheid Museum  
www.apartheidmuseum.org/visiting-us

Constitution Hill  
www.constitutionhill.org.za/pages/opening-hours-and-admission

Lion and Safari Park  
www.lionandsafaripark.com/Rates

Elephant Sanctuary  
www.hartebeespoortdam.elephantsanctuary.co.za

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REALITY EXPERIENCE