

# Open access for excellence and equity

Laura Czerniewicz

Berlin 9 Conference

November 2011



[http://www.slideshare.net/  
laura\\_Cz/open-access-for-excellence-and-equity-10103490](http://www.slideshare.net/laura_Cz/open-access-for-excellence-and-equity-10103490)

107



# University of Cape Town

- Oldest South African university
- Top ranked African university
  - QS World University Rankings
  - The Times Higher Education World University Rankings
  - Academic Ranking of World Universities
- Medium sized – 25 000 students
- Changed demographics since apartheid ended in 1994

# Prestigious research

- Africa Earth Observatory Network [(AEON)] <http://www.aeon.uct.ac.za>, an Earth Science initiative to promote Earth Stewardship through science, partners in Germany & France.
- The Department of [Mathematics](#) and [Applied Mathematics](#) is an international centre for research in the fields of [cosmology](#) and [topology](#).
- The Department of [Physics](#) is home to the UCT-[CERN](#) research centre, which is partially responsible for the software design of the High Level Trigger component of the [ALICE](#) experiment at the [Large Hadron Collider](#), as well as other activities related to ALICE.
- The Department of [Electrical Engineering](#) is involved in the development of technology for the [Karoo Array Telescope](#) (KAT). KAT is a precursor to the [Square Kilometer Array](#), a proposed International project to build the world's largest radio telescope by 2020. Research groups in [RF](#) design and [digital](#) design contribute to the RF front-end and digital back-end of the KAT project.
- The Institute of Infectious Disease and Molecular Medicine [(IIDMM)] <http://www.uct.ac.za/depts/iidmm> is engaged in research on candidate tuberculosis vaccines, and is developing candidate HIV vaccines matched to the South African epidemic.
- The MRC/UCT Medical Imaging Research Unit [(MIRU)] <http://www.miru.uct.ac.za>, inspired by the work of alumnus [Allan McLeod Cormack](#) who won a Nobel Prize for the [CAT-scanner](#), studies brain and cardiac function and develops diagnostic imaging tools, one of which has led to the spinout of [CapeRay](#).

# South Africa

- South Africa is the 7<sup>th</sup> most unequal country in the world (as determined by Gini co-efficient)
  - SA is at 145 out of 151 countries - Gini index 57.8%
  - The USA is 86 with an index of 40.8%
- 65% of SA population live on less than \$3000 a year
- The poorest 20% of the population account for 2% of consumption: the richest 20% of the population account for 66.5% of total consumption (Achar 2005).
- 14.1 mill social grant recipients in 2010 (50 million)

# Need for graduates

- “Firstly, skills deficits and bottlenecks, especially priority and scarce skills, contribute to structural constraints on our growth and developmental path. Secondly, a skilled and capable workforce is critical for decent work, an inclusive economy, labour absorption, rural development, the reduction of inequalities and the need for a more diversified and **knowledge intensive** economy,”

Minister for Higher Education and Training, Dr. Blade Nzimande

3 May 2011 Pretoria

# Schooling system taking strain

- Serious disparity of learning achievement by socioeconomic status & geography
  - eg 10% of Gr 6 students from poorest quartile reading at Gr 5 level
  - yet 70% from wealthiest quartile were
- SA rated 138th out of 142 countries in maths and science education (Global Competitiveness Report 2011/12)



# Higher education Inequity of participation

Higher Education Gross Enrolment Rate  
of the relevant age group

*Total enrolment as percentage of 20-24 age-group*

| <i>Country</i> | <i>%</i> |
|----------------|----------|
| Nigeria        | 10%      |
| South Africa   | 15%      |
| United Kingdom | 60%      |
| Australia      | 72%      |
| United States  | 83%      |
| South Korea    | 91%      |

GRE = total enrolment - of any age - in a grade or phase is pressed as a percentage)

UNESCO figures in Scott 2009

# HE Gross Enrolment by race

*Total enrolment in 2005 as percentage of 20-24 age-group*

|               |     |
|---------------|-----|
| White         | 60% |
| Indian        | 51% |
| Coloured      | 12% |
| Black/African | 12% |

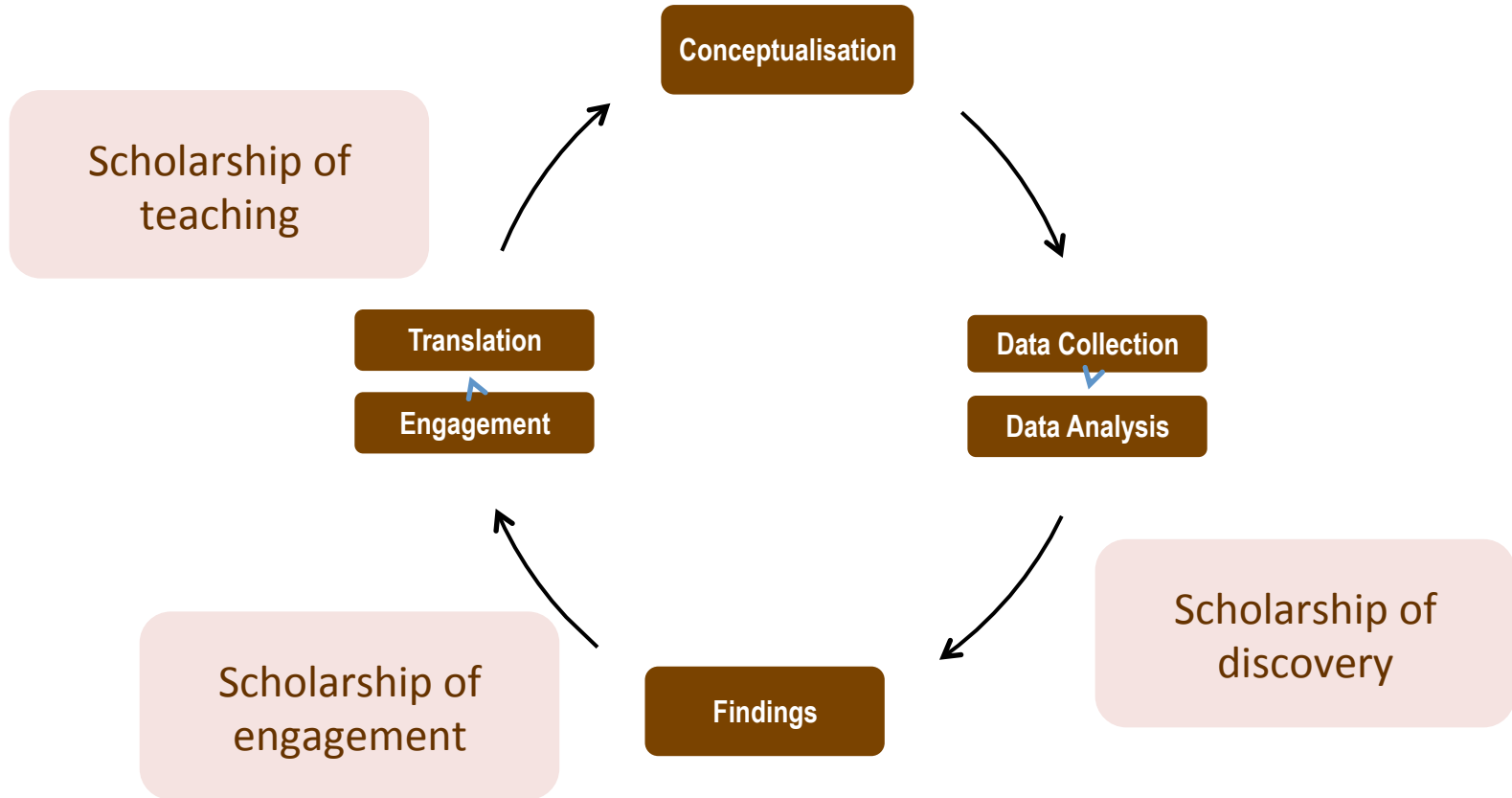
# Inequity of outcomes

- 30% of students graduate within five years
- It is estimated that under 45% of the intake will ever graduate.
- Even in the the 'contact' universities (excluding distance education), only 50% of the intake graduate within five years.
- Drop-out in vocational diplomas is much higher, around 60%.
- In most contact university programmes, black graduation rates are under half of those for whites, and (despite the enrolment and population demographics – under 10% of the population is white) there are fewer black than white graduates.
- The net effect is that under 5% of the 20-24 year-old black age-group are succeeding in any form of higher education.

# Response

- Multipronged response including curriculum support, extended programmes etc
- Need for adequate, available, appropriate resources critical
  - Scholars
  - Students
  - Community
    - The quadruple helix (university, government, industry, civil society organisations)(Cooper 2011)

# Scholarship – Boyer (1990)



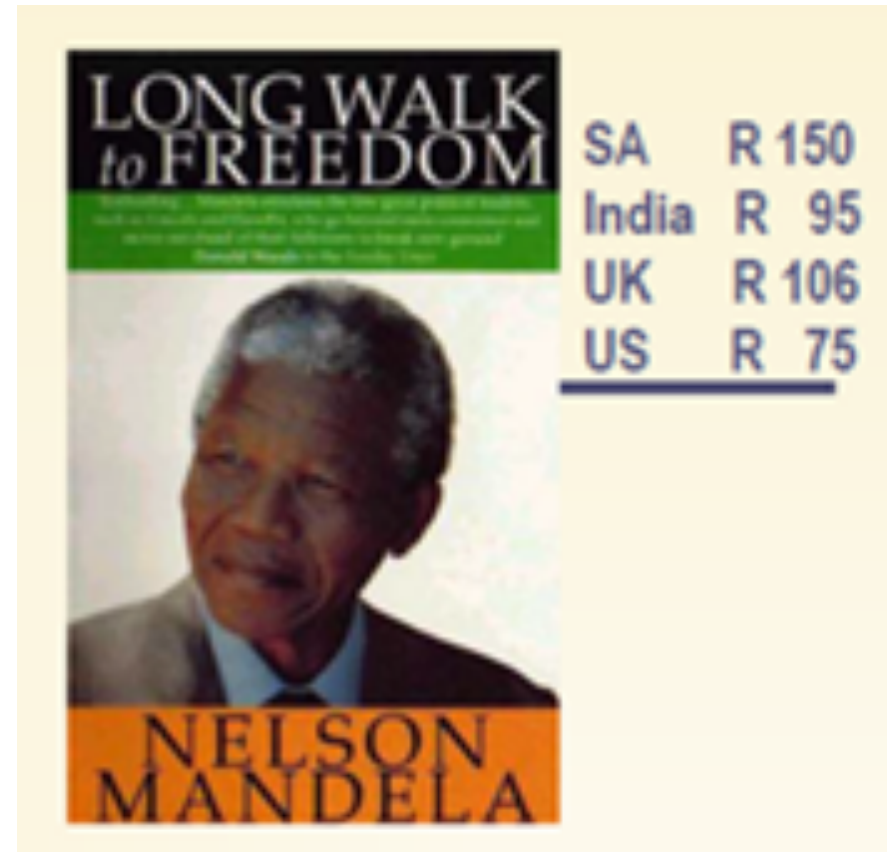
Teaching and learning resources

# Teaching and learning resources

- Most university textbooks imported
- Numbers beyond 1<sup>st</sup> year too small for local publishers to publish for
- Cost of textbooks, high
  - SA study - the cost of a year's learning materials up to one third of the cost of tuition. (Achar 2005)
- Content often unsuitable, lack of local case studies, lack of local issues

# Relative affordability

- 0.2% of GDP/capita – US
- 6.5% of GDP/ capita – SA
- Prepared to pay \$316?



Achar 2005



- Availability
  - Book sellers under-order
  - Imported text often can't be replenished on time
- Photocopying
  - Students
  - Desperate lecturers
- Textbooks torrents

OERs critical



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UNIVERSITE VIRTUELLE AFRICAINE  
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at AVU

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Teacher Education Program

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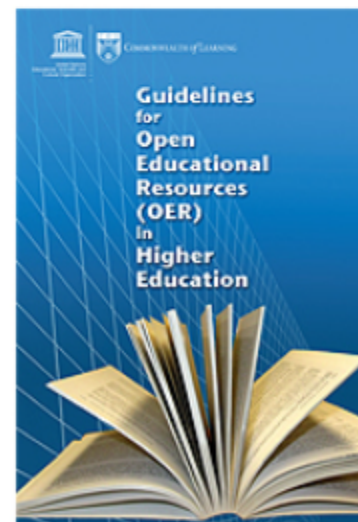
- Launched January 2011
- 219 open educational modules in three languages
- Developed collaboratively by clusters in 10 African countries
- Downloaded by 142 countries
  - significant numbers from Brazil and the United States



Learn about OER, copyright issues and OER value proposition



Guidelines for OER in HE



OER Africa provides you access to all the information you will need to [learn about and benefit from Open Educational Resources \(OER\)](#). If you are just discovering OER, we provide an excellent starting point for finding OER, learning about the benefits of sharing. We currently focuses on the supporting and developing OER in these thematic areas: [Agriculture OER](#), [Health OER](#), [Foundation OER](#) and [Teacher Education OER](#). To find out more about each thematic area, how to participate and view/download resources click on links below.





# UCT OpenContent

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Sharing online resources for teaching and learning • Deelbare onderrig en leerbronne • Ukwabelana ngezixhobo zokufundisa nokufunda

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Resource Pack  
UCT Chemical  
Engineering Schools  
Project



Media Sexual and  
Reproductive Health  
Taboos in the Middle  
East and North Africa  
(MENA)  
Dr. Ibrahim Saleh



WikiLeaks in MENA:  
Dr. Ibrahim Saleh



Handbook on Citation  
Karin de Jager and  
Dianne Steele

The UCT OpenContent directory is the web portal for accessing open teaching and learning content from the University of Cape Town.  
[Read More](#)



## Popular resources

Open Teaching in a Digital

NGO ICT and e-Readiness  
Self-Assessment Tool

Building a global teaching  
profile: OER at UCT

A Manual of Online Molecu  
Biology Techniques

Facilitating Online



## Faculties

Centre for Higher Education  
Development

Commerce

Engineering and the Built  
Environment

Health Sciences

Humanities

Law

Science



## Tags

Democracy manual

UCT Libraries

Microsoft

2007 climate change

A diversity Egypt

[more tags](#)

# OpenContent Directory

- Development funded by Shuttleworth
- Located in CET, Teaching & Learning Resources
- Launched February 2010
- To date 800 downloadable items
- Different granularity
- 63,835 site visits from 179 countries

It has made the university more visible because our OER are out there...Lately KNUST is priding itself on being the best university in Ghana and this is partially based on the Webometrics ranking of the university's visibility. And OER have contributed, I think, in a small way, towards making the university more visible.

**Peter Donkor 2011**

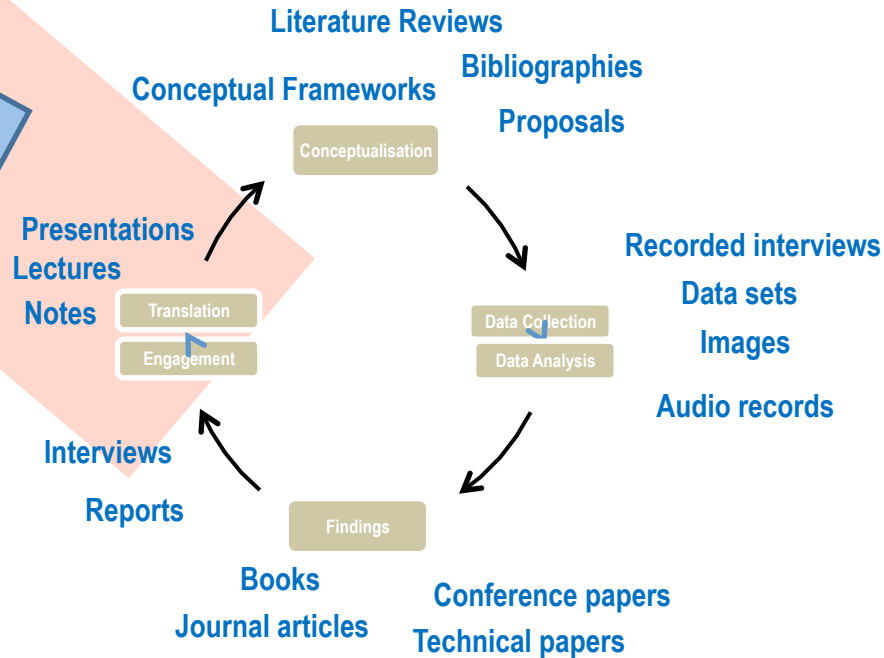
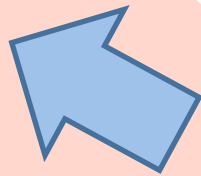
Provost College of Health Science, Kwame Nkrumah University of Science and Technology



Open access offers students  
more

# Scholarship

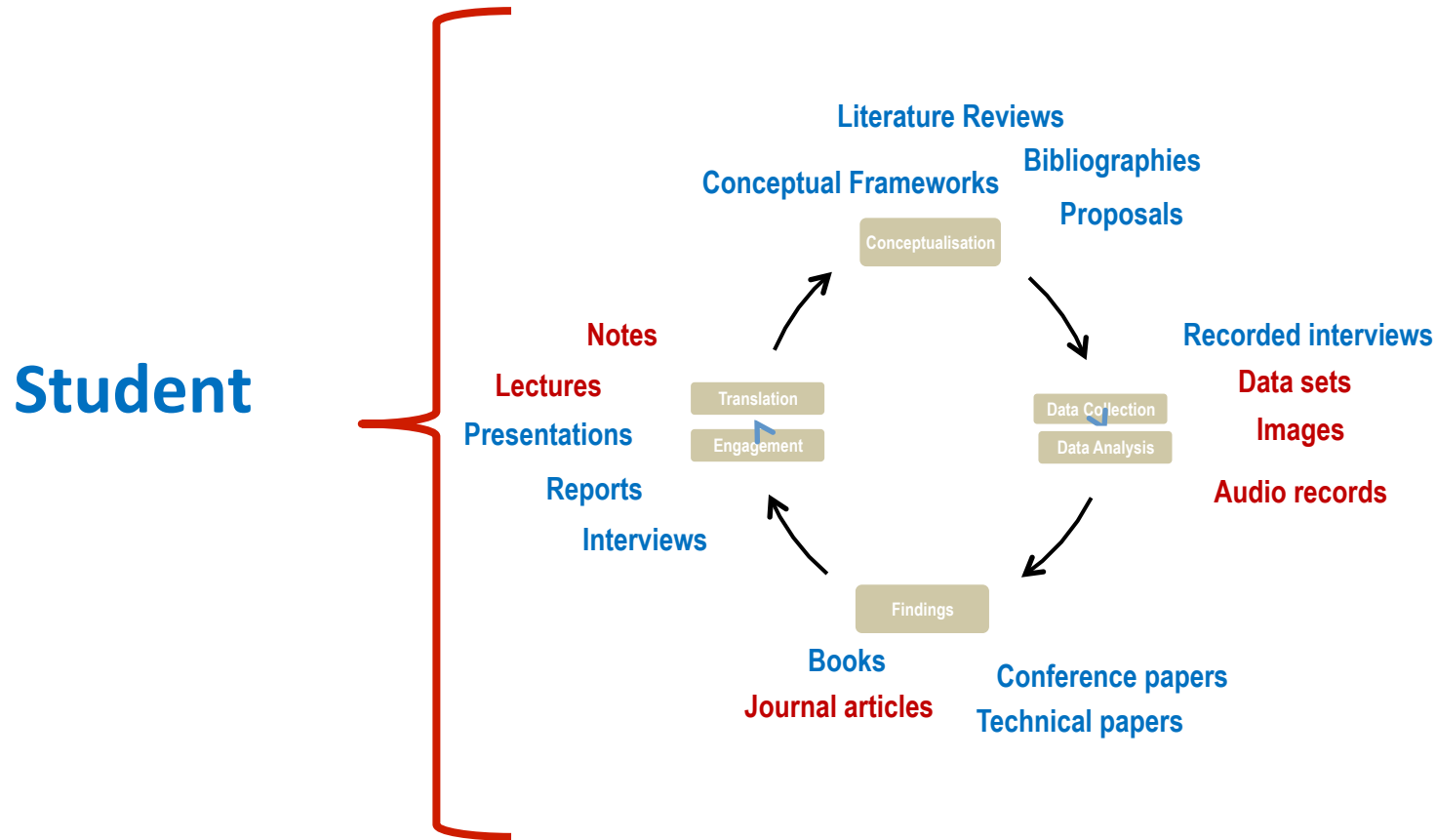
**Student**



Closed inefficient  
provision of learning  
resources for  
students as present

# Open Scholarship

## new possibilities for students



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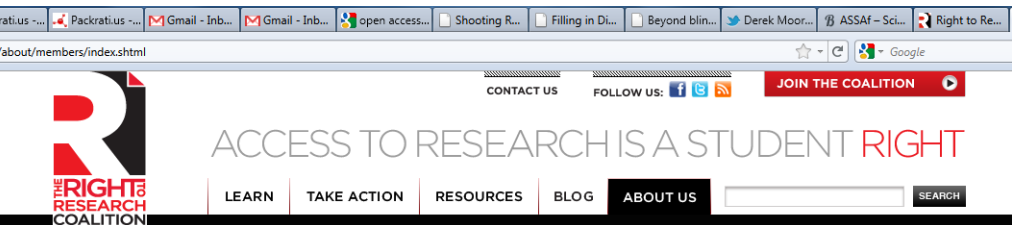
Success Stories

## View a Catalog Category

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## Our Solution

# Student support for OA



# ABOUT US

[Home](#) > [About Us](#) > [Our Members](#)

## Members of our Coalition

 **PRINT**       **E-MAIL**

SHARE:   

The Right to Research Coalition currently includes 40 student organizations who have signed the [Student Statement on the Right to Research](#). Collectively, we represent nearly 7 million students internationally.

- The American Medical Student Association
- The American University Washington College of Law Student Bar Association
- Athabasca University Graduate Students' Association
- California Institute of Technology Graduate Student Council
- The Canadian Federation of Students
- Columbia University Graduate Student Advisory Council
- Cornell University Graduate and Professional Student Assembly
- The Croatian Pharmacy and Medical Biochemistry Students' Association
- Dartmouth College Graduate Student Council
- Direção Executiva Nacional dos Estudantes de Medicina (Brazil)
- The European Pharmaceutical Students' Association
- The Indian Medical Student Association
- The International Association for Political Science Students
- The International Association of Students in Agricultural and Related Sciences
- The International Federation of Medical Students' Associations
- The International Federation of Medical Students' Associations - The Netherlands
- Library and Information Science Student Association, Simmons College
- The Macedonian Medical Student's Association

## OUR MEMBERS

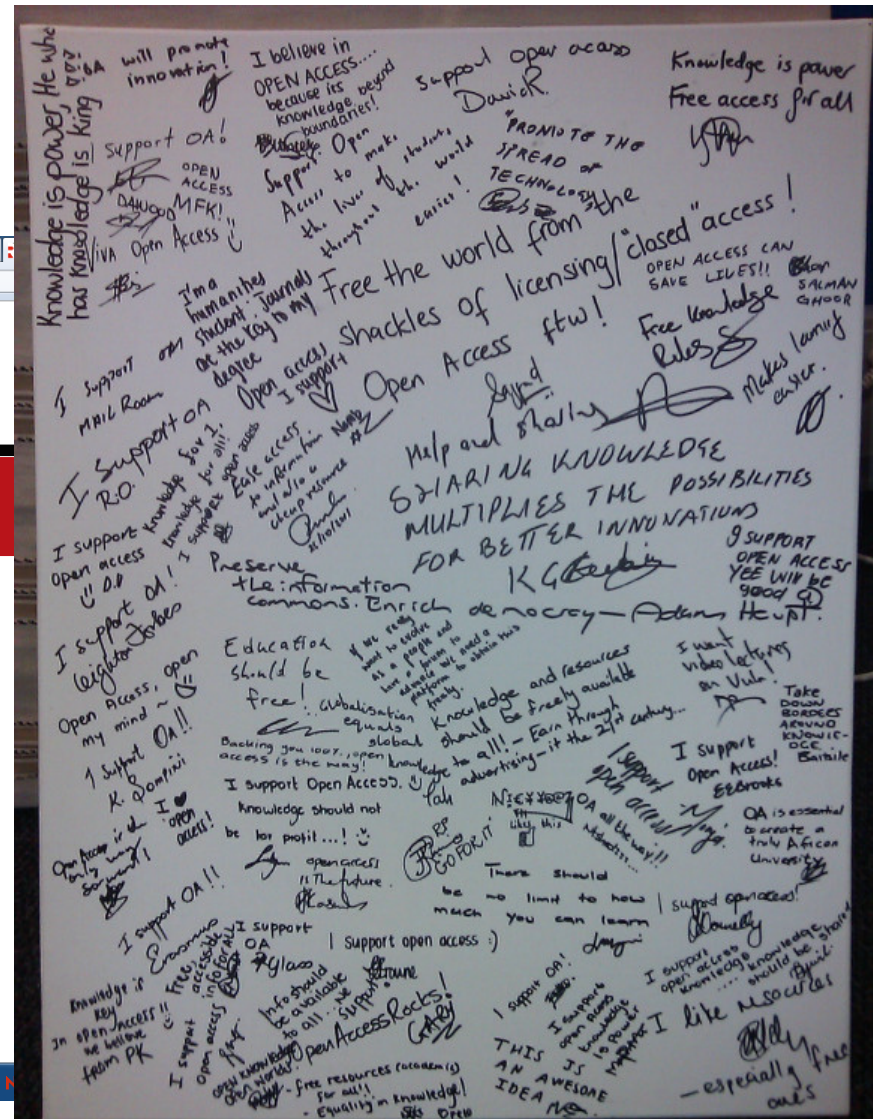
## OUR STATEMENT

## R2RC IN THE NEWS

## GOVERNANCE

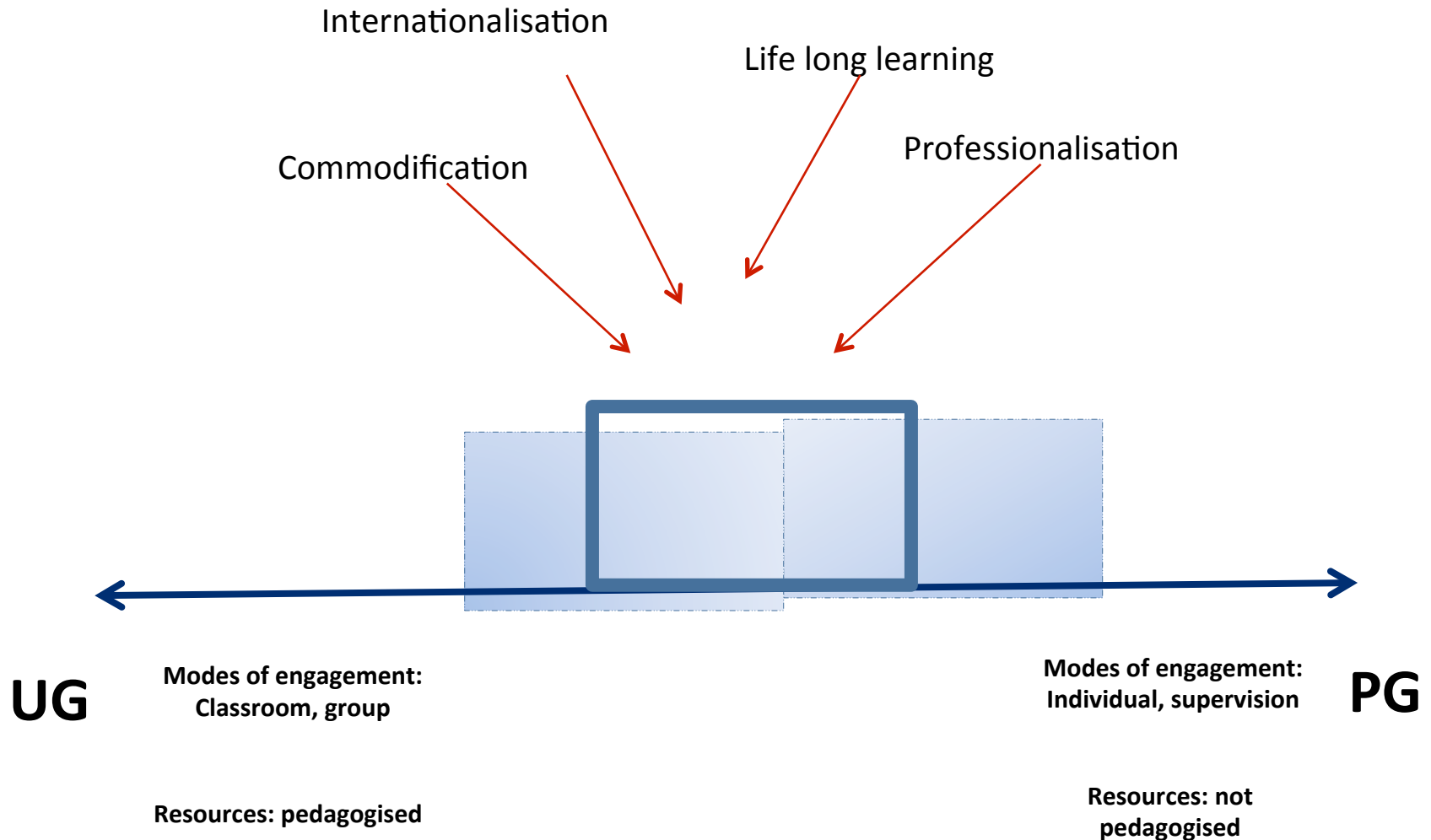
## PROFILES

**JOIN THE COALITION**

**WRITE TO CONGRESS**

Research- teaching continuum

# Changing post-graduate space



# Scholarship of engagement



## Events

No events

## Announcements

**SALDRU has moved offices.**

We are located on the 3rd Floor of the School of Economics building, Middle Campus.

## Welcome

The Southern Africa Labour and Development Research Unit (SALDRU) carries out research in applied empirical microeconomics with an emphasis on labour markets, human capital, poverty, inequality and social policy. We strive for academic excellence and policy relevance. SALDRU has implemented a range of innovative surveys in South Africa since it was founded in 1975, and is based in the School of Economics in the University of Cape Town. We have three permanent research staff, and twenty two Research Associates who share common research interests, and are drawn from the UCT School of Economics, as well as other South African and international universities.

## Latest Publications

[Ethnic Solidarity and the Individual Determinants of Ethnic Identification](#) by Thomas Bossuroy - Working Paper 69

[What Drives Corruption? Evidence from North African Firms](#) by Clara Delavallade - Working Paper 68

[The fate of Zimbabwe's children: Insights from changes in nutrition outcomes, 1999-2006](#) by Obert Pimhidzai - Working Paper 67

[Individual notions of distributive justice and relative economic status](#) by Abigail Barr, Justine Burns, Luis Miller, and Ingrid Shaw - Working Paper 66

[The Weight of Success: The Body Mass Index and Economic Well-being in South Africa](#) by Martin Wittenberg - Working Paper 65

## Seminars

There will be no SALDRU Seminar this week.

## Farewell to an old friend and colleague



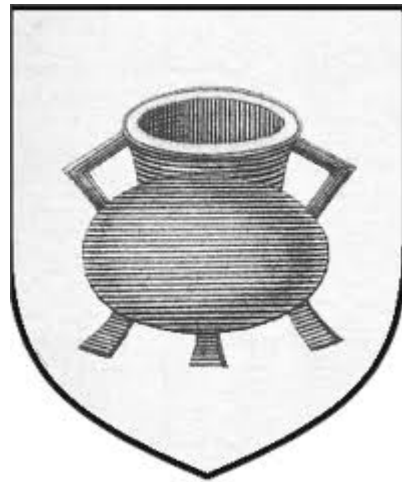
After a lengthy battle with cancer, our dear Dudley Horner passed away. Dudley was the Deputy Director of SALDRU from its founding in 1975 until his retirement in 2005. Thereafter he was an Honorary Research Associate, active in SALDRU until his death. [Tributes and comments.](#)

# OA supports *all* core business

Research

Teaching

Engagement





# Strategic goals

- Internationalising UCT via an Afropolitan Niche
- Transformation of UCT Towards Non-Racialism - Redress, Diversity, Inclusiveness and the Recognition of African Voices
- A Vision for the Development of Research at UCT: Greater Impact, Greater Engagement
- Enhancing the Quality and Profile of UCT's Graduates
- Expanding and Enhancing UCT's Contribution to South Africa's Development Challenges

# How will it be possible?

The technology

# Mobiles broadly

- **“always-connected” devices, ie sim enabled devices**
  - Non-WAP enabled cell phones
  - WAP phones
  - Smartphones
  - Tablets
  - Ereaders

# MOBILE

MOBILE PENETRATION //

NUMBER OF  
MOBILE PHONES  
ON THE PLANET  
**5.3 BILLION**

.....

OUT OF 6 PEOPLE  
5 HAVE A PHONE



THERE ARE  
**200 MILLION**  
MORE MOBILE PHONES  
IN AFRICA THAN  
IN THE USA

The number of mobile phone subscribers in Africa has doubled since 2008 and multiplied tenfold since 2002. This means that,

AT THIS RATE  
EVERY SINGLE PERSON  
WILL OWN A MOBILE  
BY THE YEAR **2020**

In addition, it is important to note that right now there are even more mobile phone users than owners, as in the villages it is common for a whole family to share one mobile phone, or to pay for the use of community phones offered by local micro-entrepreneurs.

THE NUMBER  
OF SMS SENT  
EVERY DAY  
EXCEEDS THE  
POPULATION  
OF THE PLANET



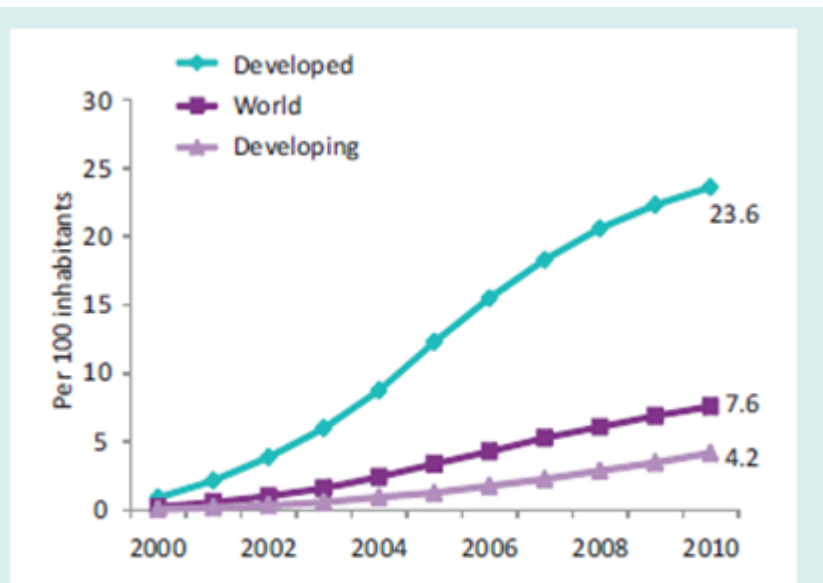
**6.1** TRILLION  
SMS SENT  
IN 2010  
200,000  
EVERY  
SECOND

# The stats

- 500 million+ mobile phone subscribers in Africa today, more than half of the continent's population.
- Of the 110 million Africans who do use the internet, more than half do so via their mobile phone
- Mobile cell coverage is at nearly 90% of the population

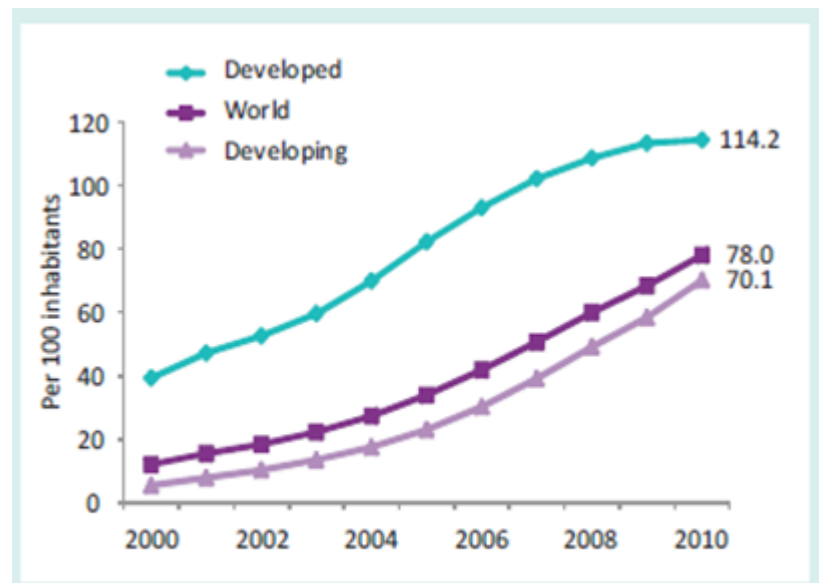
# Mobile

Fixed broadband subscriptions  
2000-2010



Source: ITU World Telecommunication/ICT Indicators database.

Mobile cell subscriptions  
2000-2010



Source: ITU World Telecommunication/ICT Indicators database.



# Mobile web dominance

| Percentage of mobile Web users who never or infrequently use the desktop Web |                        |                      |                        |
|--|------------------------|----------------------|------------------------|
| Country  | Percentage mobile-only | Country              | Percentage mobile-only |
| Egypt  | 70%                    | Indonesia            | 44%                    |
| India  | 59%                    | Thailand             | 32%                    |
| South Africa   | 57%                    | China                | 30%                    |
| Ghana  | 55%                    | US                   | 25%                    |
| Kenya  | 54%                    | UK                   | 22%                    |
| Nigeria  | 50%                    | Russia               | 19%                    |
| Source: On Device Research (December 2010)                                   |                        | Survey group: 15,204 | via: mobiThinking      |

dotMobimobiThinkingmobiForgeready.mobiDeviceAtlasgoMobi

# The rise of smartphones

- Estimate for SA **8 million**
  - Estimate for SA students **70%**
- and**
- Emergence of cheap tablets

**"A kid in Africa with a smart-phone has more information today than the President of the United States did 15 years ago."**

**Ray Kurzweil**

TECHNOLOGY AUTHOR & INVENTOR





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Laura.czerniewicz@uct.ac.za  
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