



OFFICE OF  
DIGITAL LEARNING

XTALKS: DIGITAL DISCOURSES

# GOING ONLINE IN HIGHER EDUCATION: AN INEQUALITY & INCLUSIVITY PERSPECTIVE

Laura Czerniewicz

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[Laura.Czerniewicz@uct.ac.za/](mailto:Laura.Czerniewicz@uct.ac.za) @czernie

# THIS TALK

- The changing HE landscape
  - Curriculum, new models
- Equality/inequality as a frame
  - Therborn's types of inequality
- Key questions & implications at global, institutional and course levels through the inequality lens

With thanks to Paul Prinsloo and my colleagues in the Centre for Innovation in Learning and Teaching at the University of Cape Town

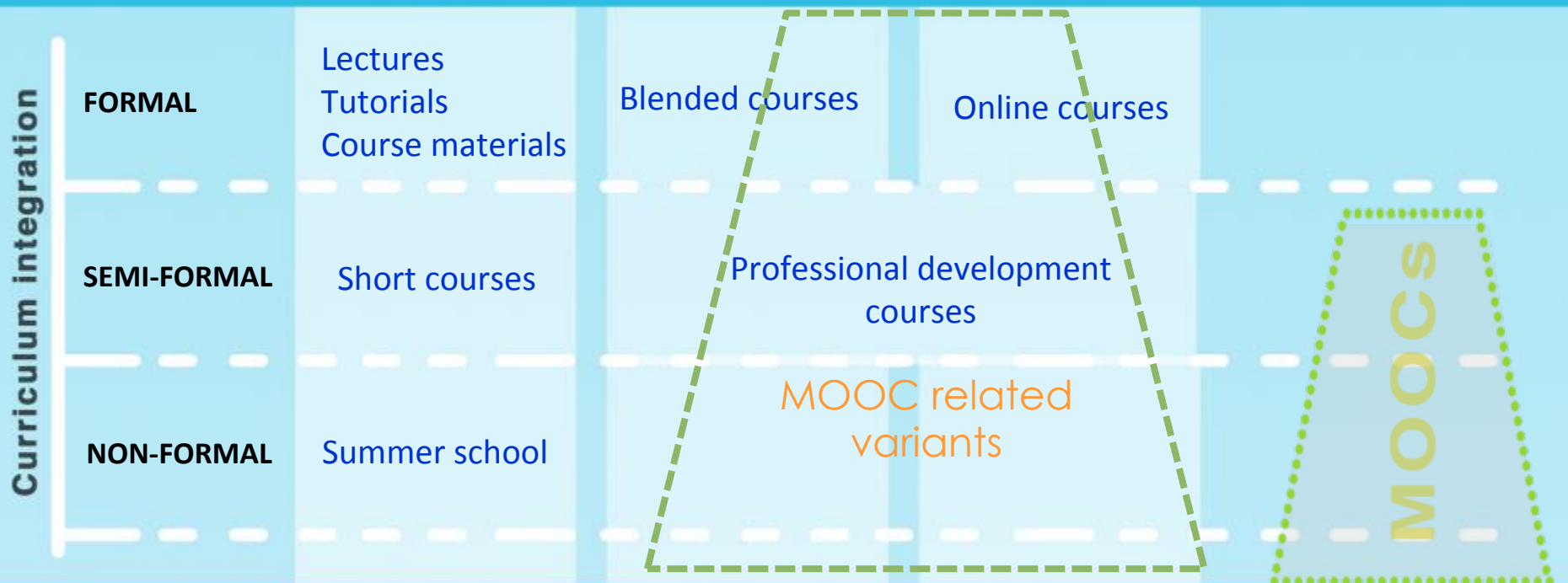


# INTRODUCTION

The changing digitally – mediated  
Higher Education Landscape

# THE CURRICULUM LANDSCAPE

conventional ← → flexible



# DISAGGREGATION & CHANGING MONETISATION

MODELS: From singular to differentiated

	<b>Traditional</b> Complete package	<b>Emergent models</b> Individual elements
<b>Fees</b>	Yes	No/ maybe
<b>Content</b>	May be free/included in fees/paid for	May be paid
<b>Support</b>	Free/included in fees	May be paid
<b>Assessment</b>	Free/included in fees	May be paid
<b>Certification</b>	Free/included in fees	Paid
<b>Quality Assurance</b>	Free/included in fees	Paid
<b>Platform</b>	May be licensed or free (student does not pay)	May be licensed or free

# DIVERSITY OF PLAYERS

## Examples of Emerging and/or Increasing Powerful Actors in Global Higher Ed & Research

ACTORS	GOALS/LOGICS
	MECHANISMS
International organizations (e.g., EU, IFC, OECD, UNESCO, WTO, WIPO)	Development and system change
Private information system firms (e.g., Thomson Reuters, QS, Economist Intelligence Unit)	Research services & insights (e.g., citation indices) for profit. Databases; bibliometrics
Private tech firms (e.g., Google, Cisco)	Enhancing access to information for profit
Private for profit education firms (e.g., Kaplan, Laureate)	Profit via service provision
MOOC platforms (e.g., Coursera, EdX)	Education ( <u>incl</u> LLL), revenue, profit (for some), unruly innovation
Private IP law firms	Profit via service provision
Private financial services firms (e.g., Moody's Standard and Poor's)	Profit via risk analysis
Private foundations (e.g., Gates Foundation)	Development via funding programs
University associations, consortia	Collaborative research, teaching, enhanced reputation (i.e. branding), best practice sharing

# ONLINE/BLENDED - CURRENT TREND



**NMC**

**Horizon Report > 2015 Higher Education Edition**

Short-Term Trends: Driving Ed Tech adoption in higher education for the next one to two years

- > **Increasing Use of Blended Learning**
- > **Redesigning Learning Spaces**

16

18

**The  
Economist**

Intelligence  
Unit

## **Higher education in the 21st century: Meeting real-world demands**

- **Online learning is the new frontier.** Today's institutions of higher learning have high hopes for technology-based delivery of instruction.

**Forbes**

## **The EdTech Trend In 2015**

**ONLINE LEARNING**

**BLENDED AND FLIPPED LEARN**

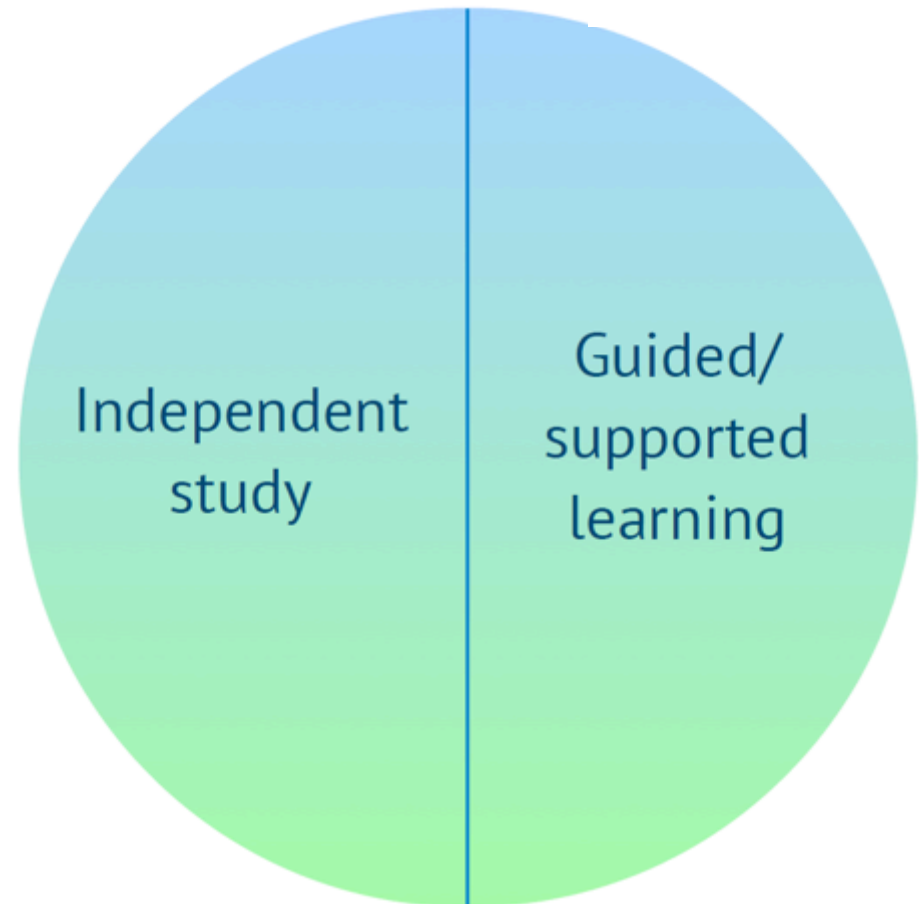
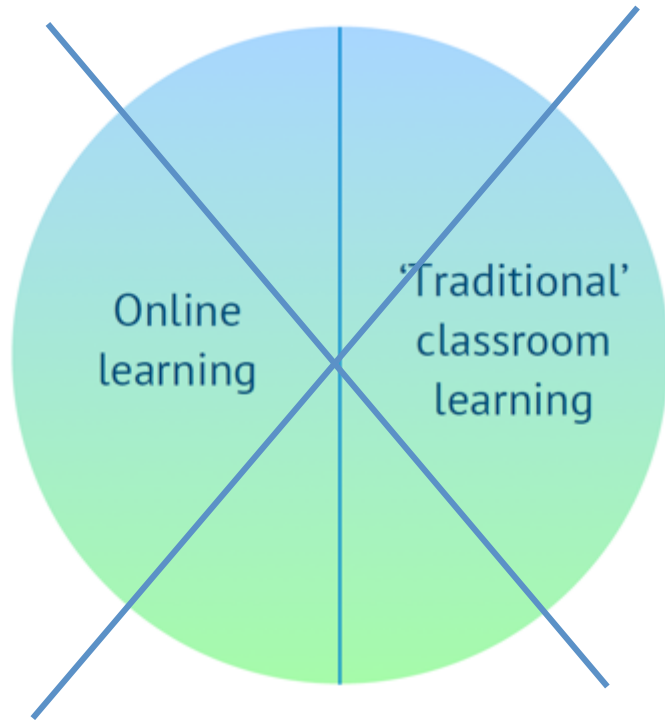
# GROWTH OF FORMAL, SEMI-FORMAL & NON-FORMAL ONLINE LEARNING

- Traditional institutions & residential institutions gaining ground on the for-profits in online & DL (Babson, 2015)
- In South Africa, legislation now allows more universities to offer online & DL (Bates, 2014)
- “Elite” institutions now offering online options
- MOOCs continue to grow & are being provided by a range of organisations with different agendas in markets around the world (ICEF 2014, Swope 2015)
- Online education has global, not local orientation





# ALL HE LEARNING IS DIGITALLY-MEDIATED



# EQUALITY/INEQUALITY

## ○ Equality

- “capability to function fully as a human being” (Therborn 2013)

## ○ Inequalities are inherently unjust and immoral, violation of human dignity

- “Inequalities are produced and sustained socially by systemic arrangements and processes, and by distributive action, individual as well as collective. It is crucial to pay systematic attention to both.” (Therborn 2013)

## ○ Multidimensional

- Equality of opportunity and of outcome
- Dimensions of inequality



# DECLARATIONS

“We hold these truths to be self-evident,  
that **all men are created equal ...**”

American Declaration of Independence (1776)

“**All men are equal** by nature and  
before the law”

French Declaration of the Rights of Man and Citizen  
(1793)



# SOUTH AFRICAN CONSTITUTION

The Republic of South Africa is one sovereign democratic state founded on the following values:

(a) Human dignity, **the achievement of equality** and the advancement of human rights and freedoms.

(1996)



# MIT MISSION

The Institute is committed to generating, disseminating, and preserving knowledge, and to working with others to bring this knowledge to bear on the world's great challenges. ....

We seek to develop in each member of the MIT community the ability and passion to work wisely, creatively, and effectively **for the betterment of humankind.**



# Top 10 trends of 2014

What are the top trends facing the world in 2014? And what should we do about them?

## 2. Widening income disparities

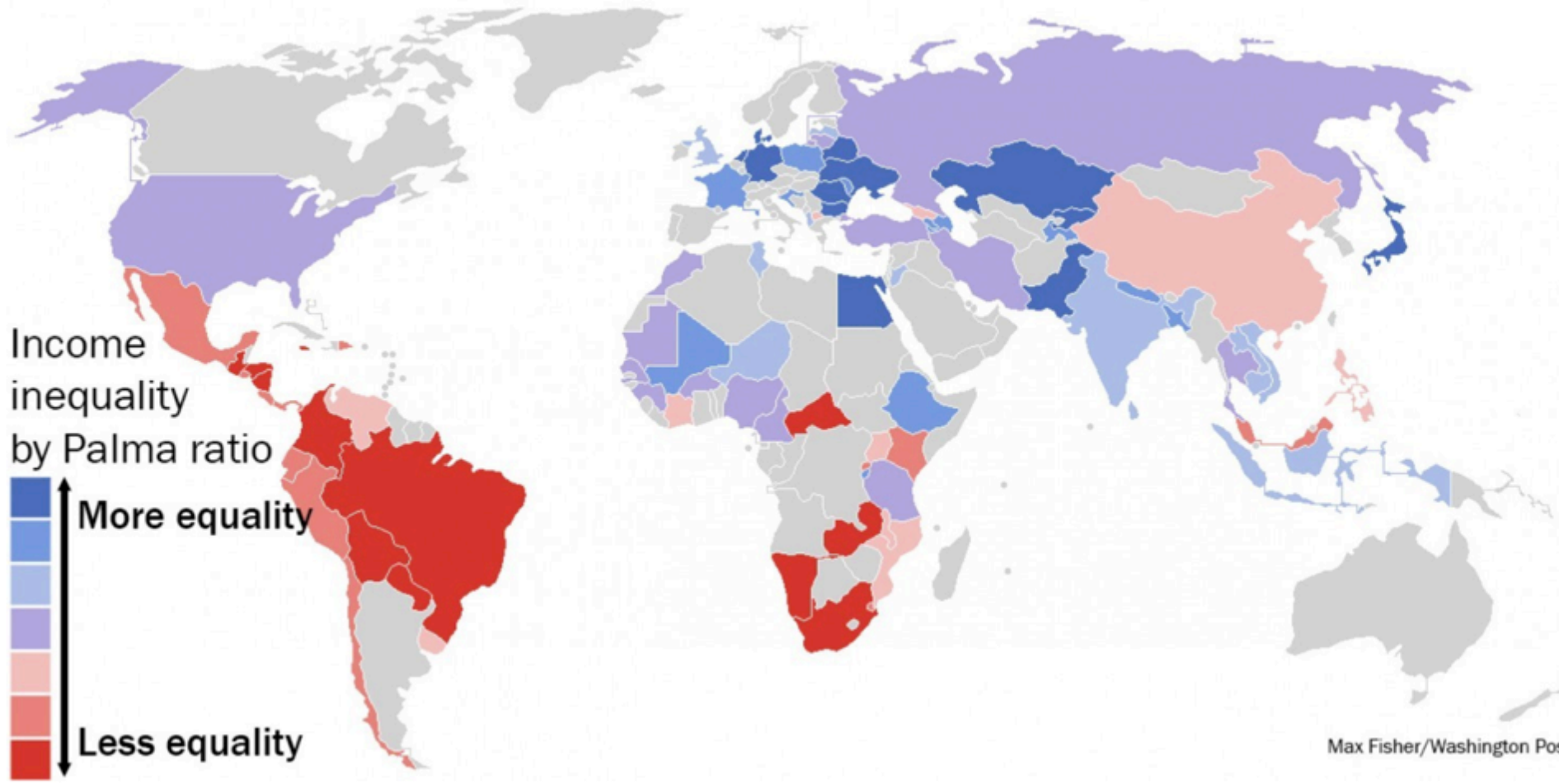
**Increasing inequality is the number one challenge facing North America**

# Outlook on the Global Agenda 2014



COMMITTED TO  
IMPROVING THE STATE  
OF THE WORLD

# INEQUALITY



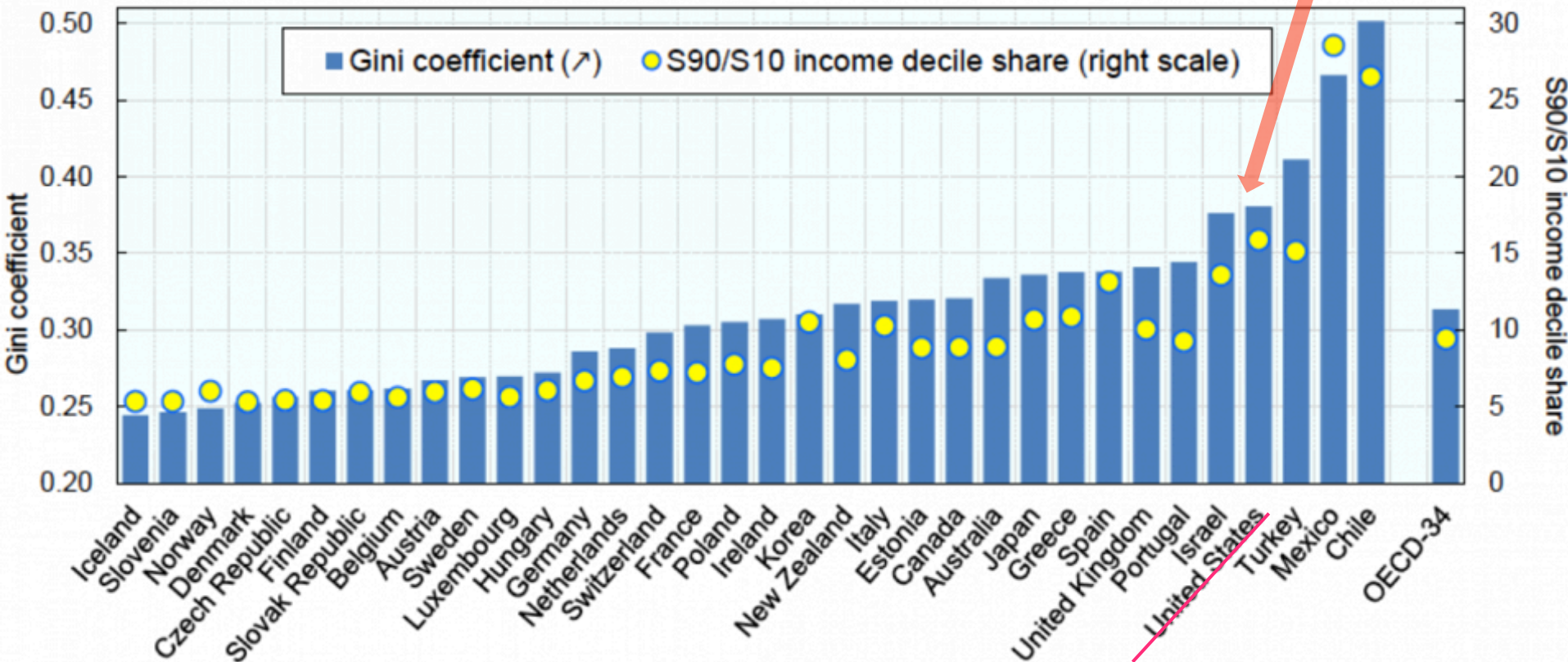
The Palma ratio = the ratio of the richest 10% of the population's share of gross national income divided by the poorest 40%'s share



# GINI COEFFICIENT\*

## 4 There are large differences in levels of income inequality across OECD countries

Gini coefficient of household disposable income and gap between richest and poorest 10%, 2010



\*Measure of the deviation of the distribution of income among individuals or households within a country from a perfectly equal distribution. A value of 0 represents absolute equality, a value of 100 absolute inequality



United Nations



# General Assembly

## Access to the Internet and the necessary infrastructure

85. **Given that the Internet has become an indispensable tool for realizing a range of human rights, combating inequality, and accelerating development and human progress, ensuring universal access to the Internet should be a priority for all States.**

la Rue, 2011, UN General Assembly Report

- “Digital access is becoming as much an equity issue in our society as access to water and electricity”

Mpho Park, Executive Mayor, 6 May 2015,  
City of Johannesburg State of the City address 2015



# AND YET....

- No mention of equality or inequality

## PREPARING FOR THE DIGITAL UNIVERSITY:

a review of the history and current state of distance, blended, and online learning



INTERNATIONAL  
COUNCIL FOR OPEN AND  
DISTANCE EDUCATION

The ICDE  
reports series

**Student success in open, distance  
and e-learning**



**NMC**

Horizon Report > 2015 Higher Education

AN AVALANCH  
IS COMING

HIGHER EDUCATION  
THE REVOLUTION

# CONTRASTING VIEWS ON CREATING EQUALITY

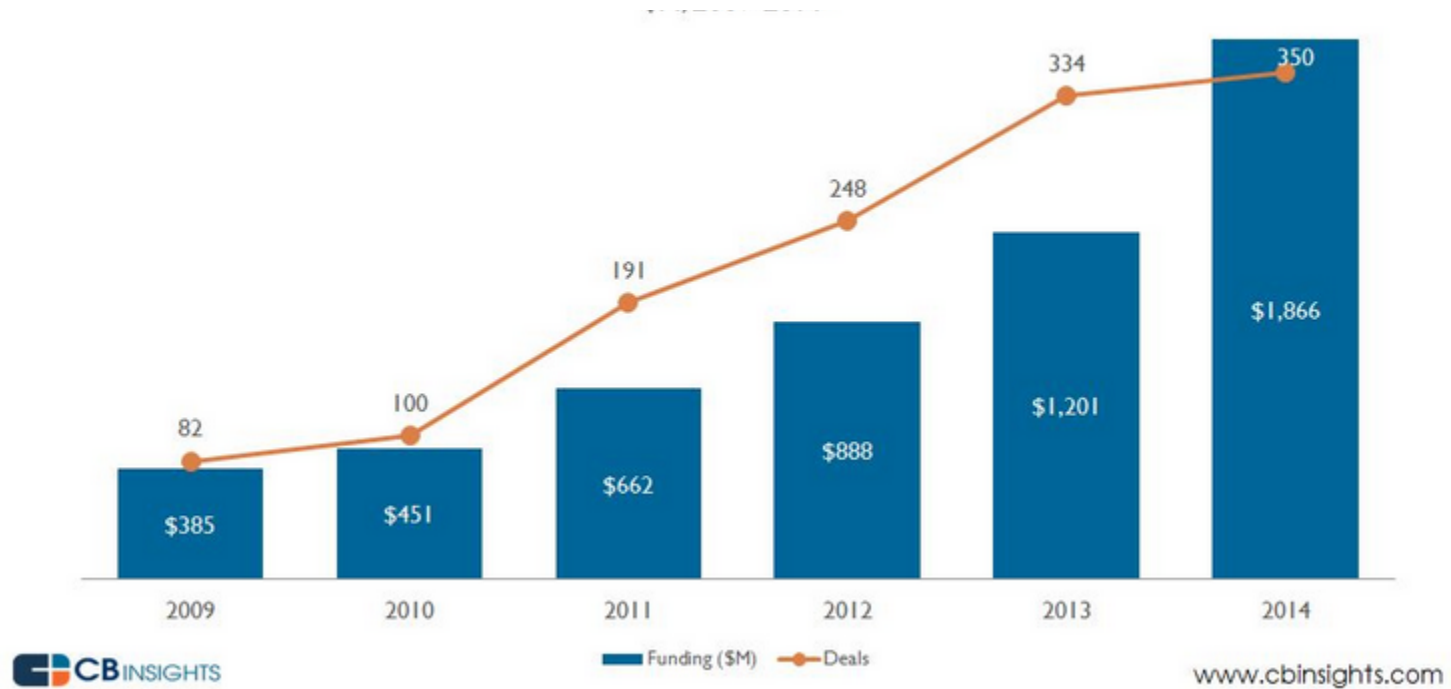
“Very simply, there are **two prevailing social imaginaries about digital technologies ..**

The prevailing dominant imaginary in today’s information societies is **market-led**. In contrast, alternative imaginaries are best described as **‘open’ or commons-led**.

.... It is this conflict that leads to major problems for stakeholders in deciding which policies and strategies, or mix of policies and strategies, **is most likely to facilitate progress towards more just and equitable information societies”**.

# MARKET-LED TREND

## Ed Tech Funding Hits \$1.87 Billion in 2014



# GEOGRAPHIES OF INVESTMENT

“With the opportunity for digital education encompassing a global audience, **over 50% of Ed Tech deal activity in the last two years has been investments in non-U.S. companies.** These countries are based in a diverse array of geos ranging from the U.K. to China to India to Russia”

<https://www.cbinsights.com/blog/ed-tech-venture-capital-record/>



# THE CAPE TOWN OPEN EDUCATION DECLARATION (2007)

We are on the cusp of a global revolution  
in teaching and learning. ..

These educators are creating a world where **each  
and every person** on earth can **access and contribute**  
to the sum of **all** human knowledge.

They are also planting the seeds of a **new pedagogy**  
where educators and learners create, shape and  
evolve knowledge together.



Recent Oxfam report argues that governments need to

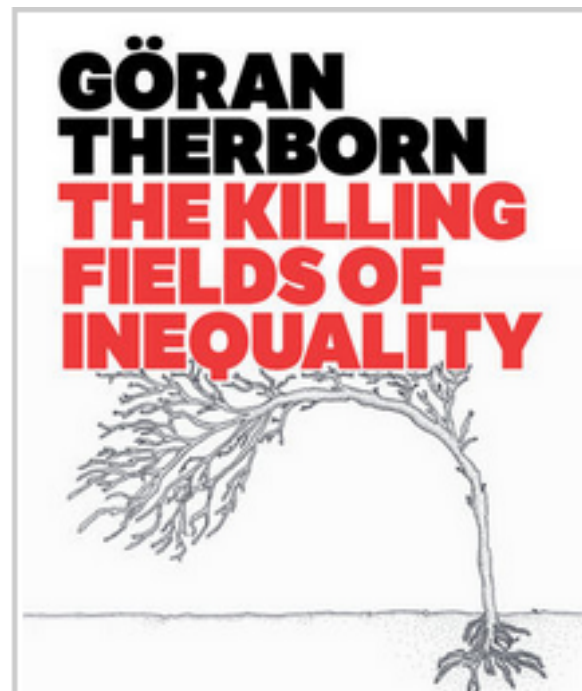
- take back control of public policy
- agree to spending at least 20 % of government budgets on education (Oxfam 2014)
  - (Between 2008 & 2012 more than half of developing countries reduced spending on education) (Oxfam 2014)
- “Transformation will not happen without a recapitalization of our institutions of higher learning” (Mbembe 2015)





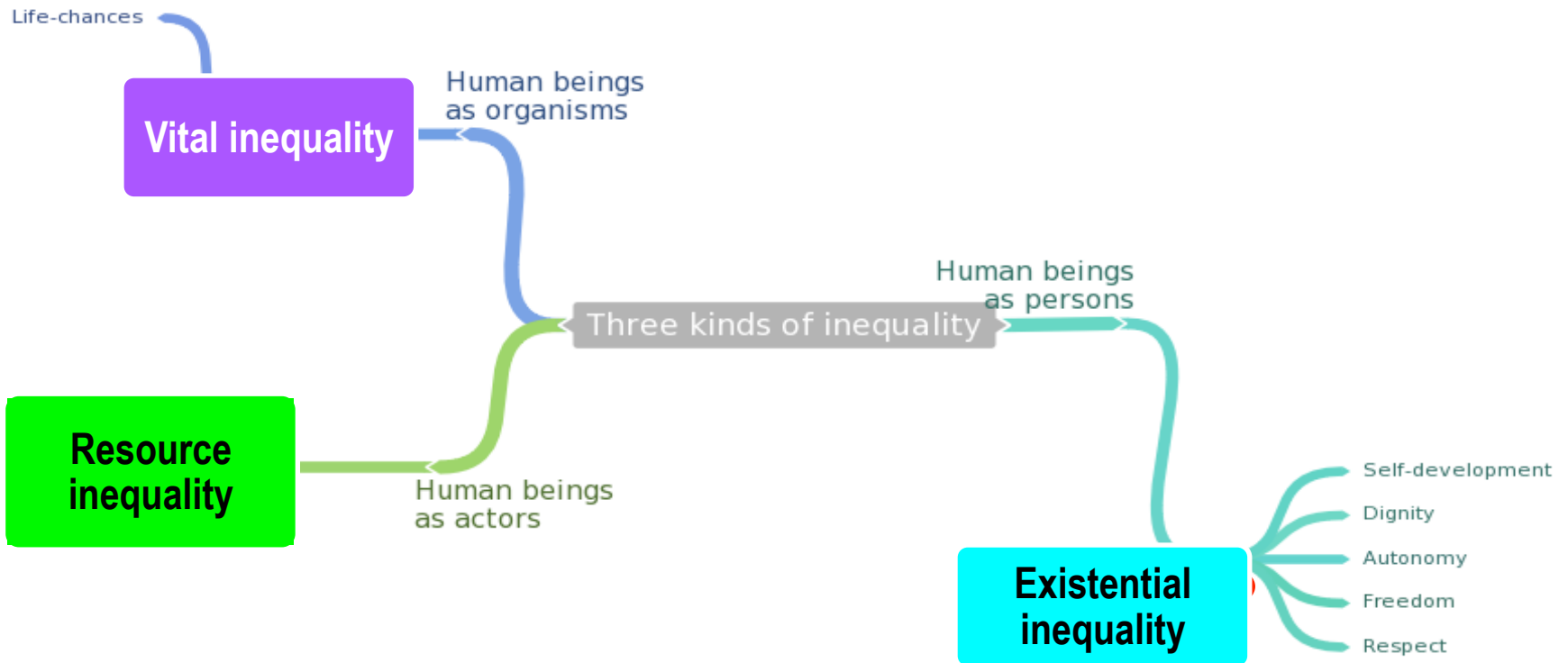
How can a values-led hybrid ecology of digitally-mediated educational provision be shaped that strikes a strategic balance between state support and private sector provision to prioritise and enable equality in higher education?





## KINDS OF INEQUALITY

# KINDS OF INEQUALITY (THERBORN 2013)



# DIMENSIONS

- Macro
  - Global, international, across the HE sector
- Meso
  - National, within institutions
- Micro
  - In curricula programmes, qualifications
  - Courses
- Across regions and within countries



# VITAL INEQUALITY

Life or death issues

# VITAL INEQUALITY

- Link between life chances and education
  - **Poor people less likely to be educated** (Seery & Caistor 2014)
  - **Educated people live longer** (Cutler, 2008)
  - **Parents of college graduates live longer** (Ingraham, 2014)
- Educational deprivation
  - **recognised as an important indicator in multiple indices of deprivation, poverty & inequality** (Noble & Wright 2012)
- New HE landscape imperative to solve broader education & social problems



# IN THE EARLY DAYS

- MOOCs have a capacity for “incredible democratisation of education”

Anant Agarwal (2014)

- “...budding revolution in global online higher education. Nothing has more potential to lift more people out of poverty ...”

Thomas Friedman (2013)



## ○ MOOCs students

- predominantly highly educated
- largely employed
- more men than women
- more educated than the general population (esp in BRICS and other developing countries)
- largely from developed countries
- those from developing countries older

Christensen et al 2013, Palin 2014





# CHALLENGES FOR ONLINE LEARNERS

- Online works better for older, female students with higher GPAs

“While all types of students in the study suffered decrements in performance in online courses, some struggled more than others to adapt:

males

younger students,

Black students

students with lower grade point averages”

Survey of 40 000 online students in nearly 500 000 courses (Xu, D & Jagger, S 2014)



Most universities and most academics in Africa do not have the luxury to invest time and resources into anything, simply on the basis that it is ‘a good thing to do’ ...

If [it] will ‘solve’ an existing problem, then it becomes a no-brainer.

- Need to bring back the focus to how the new landscape can address the needs of the disadvantaged and enable social inclusion
  - The answer to the question “*how can online education (including MOOCs) help less privileged people to learn and / or get an acknowledged education?*” has not been found yet



- Need to grow the small body of relevant research
  - Eg Dillahunt et al 2014; Yanez, 2014; de Waard et al 2014; Moser-Mercer 2014; Nkuyubwatsi 2014; Liyanagunawardena et al 2013; Nyoni 2013, de Boer et al 2013
- Need to draw policy attention at institutional and government level to social (rather than commercial) possibilities of online education



Which forms of blended and online education can best serve the social and economic interests of developing countries and of the disadvantaged in unequal societies?



# RESOURCE INEQUALITY

# RESOURCE INEQUALITY

- Access to resources
  - Economic, material, infrastructural
  - Cultural capital
    - Institutional (qualifications)
    - Embodied (abilities, disposition)
  - Social capital
- Contestations, power
  - Who has access to which resources?
  - Configurations of resources



# ELECTRICITY



[http://www.masterresource.org/wp-content/uploads/2009/12/earth\\_night.jpg](http://www.masterresource.org/wp-content/uploads/2009/12/earth_night.jpg)



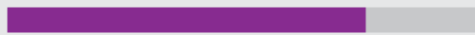
# INTERNET ACCESS THE EXCEPTION, NOT THE RULE

The percentage of population who use the internet once a year

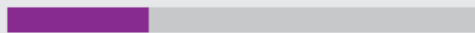
Global

**37.9%**

Developed Countries **76.2%**



Developing Countries **29.8%**



## Location is key

- North America – 84% connected
- Sub Saharan Africa- 13% connected

## Income is key

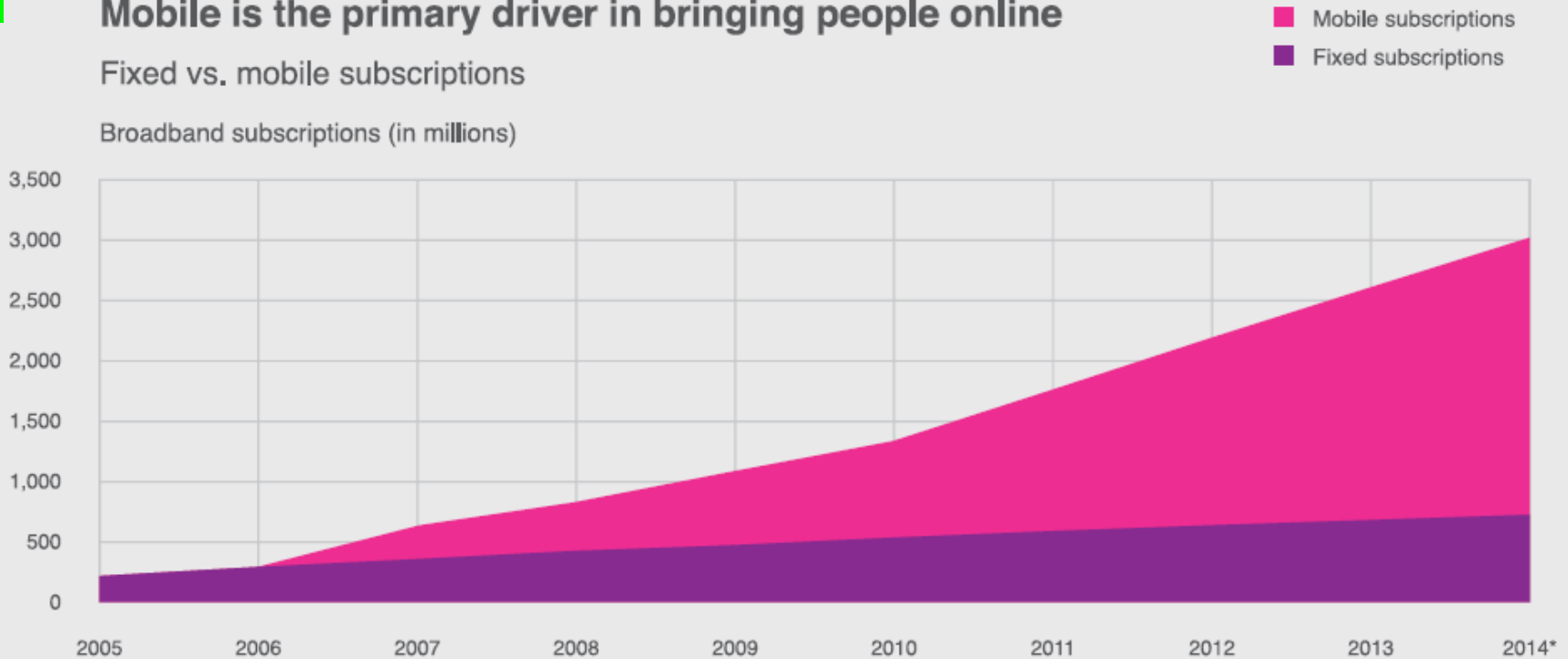
- In US
  - 99% of US adults with incomes over \$75k
  - 77% of adults with incomes less than \$30k

# MOBILE DRIVER

## Mobile is the primary driver in bringing people online

Fixed vs. mobile subscriptions

Broadband subscriptions (in millions)

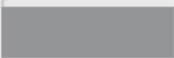
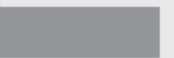
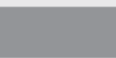











# IT'S THE DATA, NOT THE DEVICE: AFFORDABILITY

- Affordability (5% monthly income)
  - Entry level -100MB; maturing – 500MB; connected -2GB
    - In Sub-Saharan Africa, 53% could afford access of only 20 MB, (enough for SMS & email)

## Percent affordability

Percentage of population that can afford internet access at pre-paid data plan caps of 20 MB to 500 MB per month

	20 MB	50 MB	150 MB	500 MB
Global	 92.34%	 86.97%	 66.17%	 34.01%
Developed	 99.85%	 99.72%	 99.56%	 96.15%
Developing	 90.80%	 84.36%	 59.32%	 21.20%

# DIFFERING PURPOSES

- People in developing countries tended to use connectivity for personal advancement, more so than people in developed countries, who used it for convenience.
  - 40% of respondents in emerging markets said connectivity had “**improved their earning power,**” compared with just 17% in developed markets.
  - 39% of respondents in developing nations experienced a “**significant transformation in their access to education**” because of connectivity”

- More diversity of student populations than ever before
- Greater diversity of delivery models than before
- Differentiation of cultural capital

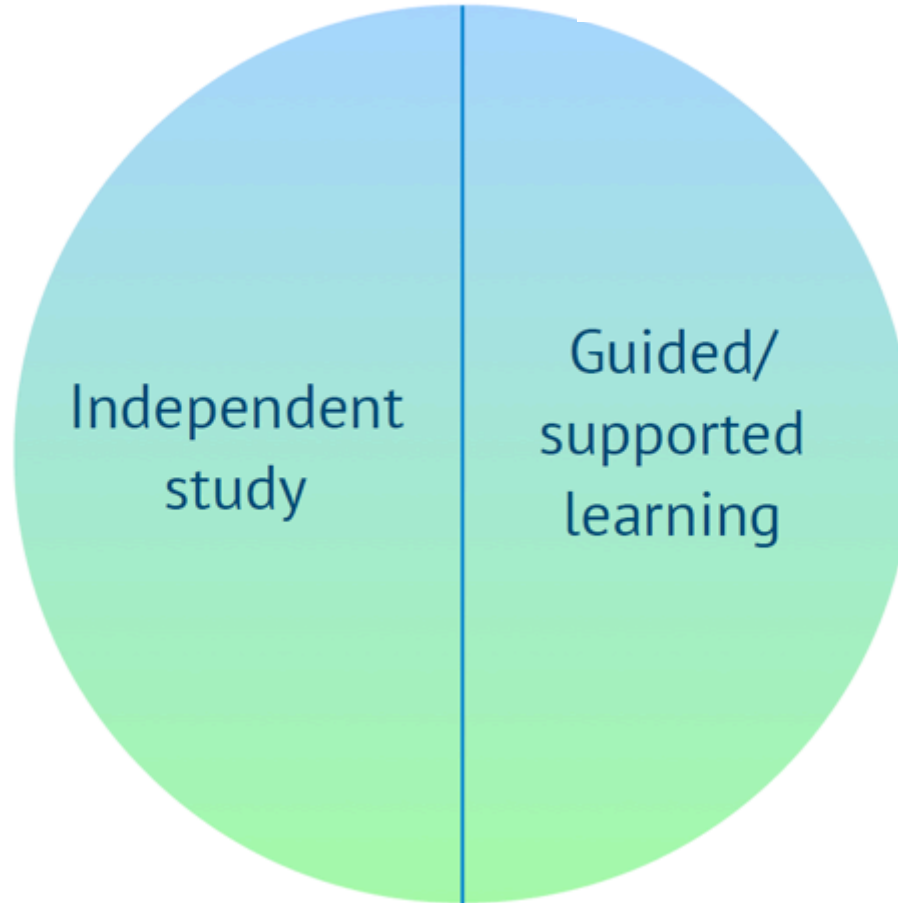


# DIVERSE STUDENT POPULATIONS

- Flexible learning comes into the mainstream, but literature shows that flexible, part-time and non-traditional learners poorly supported by universities
  - See Chikoko, Onabanjo and Isiaka, and others
  - 50 % + student population within HE in South Africa part time (Koetsier & Walters)



# RETHINKING STUDENT LITERACIES



# STUDENT LITERACIES

The online learner

has a **strong academic self-concept**;

is **competent** in the use of online learning technologies particularly communication and collaborative technologies;

understands & **engages in social interaction & collaborative learning**

possesses **strong interpersonal & communication skills** and is **self-directed**





# RESEARCH ON STUDENTS' DIGITAL PRACTICES

Resource inequality

Guided/  
supported  
learning

“Learners' engagement w digital world is v ***differentiated***

Learners' digital skills ***shallower*** than we tend to think

‘Digital natives' story hides many ***contradictions***

Active knowledge creation & sharing a ***minority***

***Activities*** typically introduced by educators

***Consumer practices & populist values*** dominate in digital space - many feel excluded or worse”

# DIGITAL LITERACIES

“A consistent diagnosis is made in the literature of a potential **lack of, or poor distribution of, the particular networking, reputational and learning skills** that MOOC environments require for successful learning.

**Online autonomy, group formation and inclusion/exclusion feelings among learners,** are a vital dynamic in MOOC learning, and are probably insufficiently understood. “



# INSTITUTIONAL CAPITAL

- Certification as an equity issue
  - Forms
    - Legitimacy
    - Value
    - Stigma



# INSTITUTIONAL CAPITAL: CERTIFICATION

“Free online courses are not going to change education in Africa, not because of access or sophistication issues or even context issues... but rather because education in Africa and South Africa is a means to an end – the qualification helps to get you a job which puts food on the table

**Until we can get verifiable accreditation right for free online courses, I don't think there will be much traction”**



# EXISTENTIAL INEQUALITY

# EXISTENTIAL INEQUALITY

- Therborn - this is the most neglected type of inequality
  - Self development
  - Autonomy
  - Freedom
  - Dignity
  - Respect



# EXISTENTIAL INEQUALITY IN HE

- Issues of power and agency
  - for academics *and* for students
- At different levels
  - across the HE sector
  - across disciplines
  - within and across institutions
  - within qualifications, curricula & courses



# CRITIQUES OF THE SECTOR

The rescaling of the university is meant to achieve one single goal – to turn it into a springboard for global markets.

The brutality of this competition is such that it has opened a new era of **global Apartheid** in higher education.

In this new era, winners will graduate to the status of “world class” universities and losers will be relegated and confined to the category of global bush colleges.





# CRITIQUES OF MOOCs

## ○ Critiques include

- Money, power & condescending attitudes
- Practices ingrained in local social realities and epistemological world views left out
- Questions regarding who really benefits

A MOOCery of Higher Education on  
the Global Front

SAMSARMA ♦ OCTOBER 3, 2013 ♦ 1 COMMENT

INTERNATIONAL HIGHER EDUCATION Number 75 Spring 2014

Pages 5-7

**MOOCs as Neocolonialism:  
Who Controls Knowledge?**

PHILIP G. ALTBACH

“evangelical arguments and self-appointed saviors of the less civilized rule the airwaves on the global front”



# CRITIQUES OF GLOBALISING KNOWLEDGE

- Dangers of a flattened “Coca-colonisation” of knowledge (Gregson et al 2015)

“The world of a Eurocentric model is presumed to be universal and now being reproduced almost everywhere thanks to commercial internationalism.

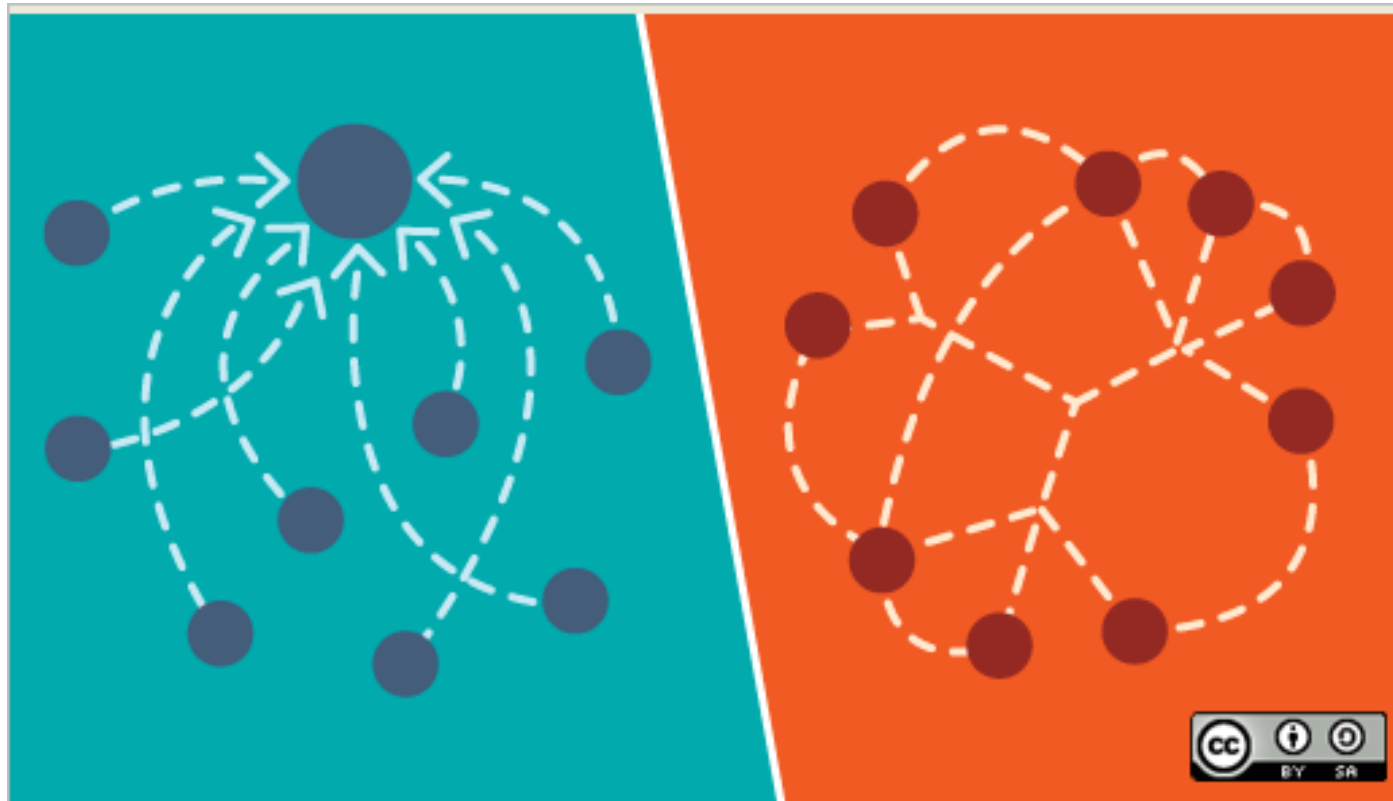
To decolonize the university is therefore to create **pluriversalism**, via a horizontal strategy of openness to dialogue among different epistemic traditions”

Mbembe , 2015



# RESHAPING NETWORKS

- Redrawing provider and recipient relationships



# RESHAPING RELATIONSHIPS

- Shift from broadcast model
- Address the digital production gap
  - The read- write web for whom?
- Access must equal **participation**
  - Eg very few MOOCs from Africa

See Brake 2014, Schruder 2011



# MOOCs ABOUT AFRICA



The University of Manchester

Water Supply and Sanitation Policy in Developing Countries



UNIVERSITY  
OF ABERDEEN

Africa: Sustainable Development for All?



Federalism &  
Decentralization: Evaluating  
Africa's Track Record



EMORY  
UNIVERSITY

The Art and Archaeology of  
Ancient Nubia



# FOSTERING PARTNERSHIPS

## Industrial Biotechnology

Learn the basics of sustainable processing for biobased products to further understand their impact on global sustainability.

The course is a joint initiative of TU Delft, the international BE-Basic consortium and University of Campinas, **Brazil**.  
Course materials CC-BY-NC-SA

Duke UNIVERSITY KCMUC 

Tropical Parasitology:  
Protozoans, Worms, Vectors  
and Human Diseases



## What Works?

Promising Practices in International Development



SUM  
CENTRE FOR DEVELOPMENT  
AND THE ENVIRONMENT



UiO : University of Oslo



# MUTUALITY & RECIPROCITY

“To recognise digital learning as the practice that networks small higher education institutions to global circuits of influence and profit, we need to think about ...this **strategic withholding** of **reciprocity**...

What are the **obligations for care** that should accompany the power to impose curriculum from one place on learners at another?

What are the implications for longer term **sustainability** of research-led teaching in smaller institutions around the world?”



# LANGUAGE

- Language

- about 80% of all content online is in one of 10 languages: English, Chinese, Spanish, Japanese, Portuguese, German, Arabic, French, Russian or Korean.

- In order to make the internet relevant to 80% of the world, it would require content in at least 92 languages





# CULTURAL & LANGUAGE COMMUNITIES

- Need new forms of research into user cultural and language behaviour online
  - Eg User-centric Ethnological Mapping of WWW to identify and characterize Regional Cultures on ethnological Maps of WWWs the world Wu and Taneja ( 2015, under review),



- China
- Taiwan/Chinese
- Wiki
- Global/US
- US/English
- Russia
- Japan
- Porn
- Vietnam
- Italy
- Germany
- France
- Brazil
- Spanish
- Video/File Sharing
- Video sharing
- Korea
- UK
- Arabic
- Turkey
- India
- Polish
- Dutch
- Canada
- Philippines

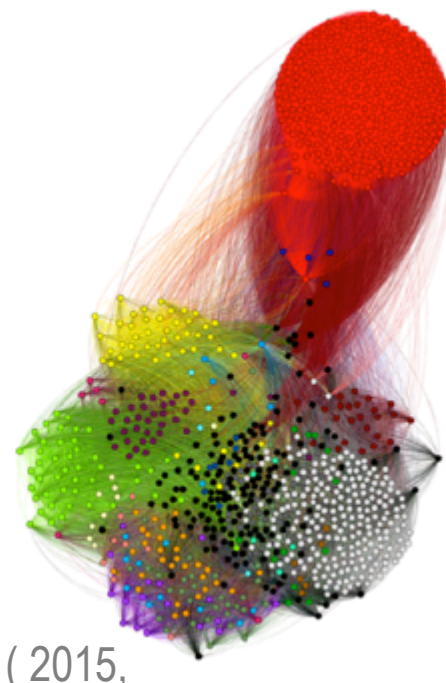


## Identifying online regional cultures

2009

2011

2013



Wu and Taneja ( 2015,

# DIVERSITY OF ONLINE CONTENT

- Online content dominated by US and developed countries (Flick, 2011)
  - Includes open content, MOOCs (Olds)
- Online representation matters
  - For knowledge formation
  - For learning (Bruno, Piaget)
  - For **existential equality**



# ALL KNOWLEDGE NEEDS TO BE DISCOVERABLE



*The Hague*  
**DECLARATION**



Add your  
signature

**The Hague Declaration** aims to foster agreement about how to best **enable access** to facts, data and ideas for **knowledge discovery** in the Digital Age.



# DIGNITY: OPPORTUNITIES TO SUCCEED

We have to distinguish between **equity of access**, and **equity of opportunity and outcomes**. While access may be secured through various mechanisms, equity of opportunity and outcomes depend crucially on **supportive institutional environments and cultures**, appropriate **curricula** and learning and teaching **strategies** and effective **induction**, and **mentoring**.



# LEARNING DESIGN FOR EQUALITY

- Open licences – remix & adapt essential
- Eliciting and respect for user experiences
  - Ownership of user-generated content
- Design for diversity
  - Review principles of cultural inclusion (Marrone et al 2013)
  - Leverage research into designing for large scale instances (see Klemmer 2015, Kulkarni et al 2013 2014, 2015)



# DATA & LEARNING ANALYTICS

- Who benefits? Whose rights?
  - The moral principles, **autonomy**, **beneficence**, **non-maleficence**, and **distributive justice** provide useful pointers for considering the practice of educational triage.

Prinsloo and Slade 2014

e-Learning: The Horizon and Beyond...

**Spies in the House of Learning:  
A Typology of Surveillance in Online Learning Environments**  
Dan Knox



# CONCLUSION



If issues of inequality and inclusion are accepted as crucial issues and critical absences in the global online higher education landscape, how can communities of policy, research and practice best be fostered to find shared solutions amongst a range of parties (including social scientists, development researchers, education and educational technology scholars, computer scientists and policy advocates) from different parts of the world?



THANK YOU



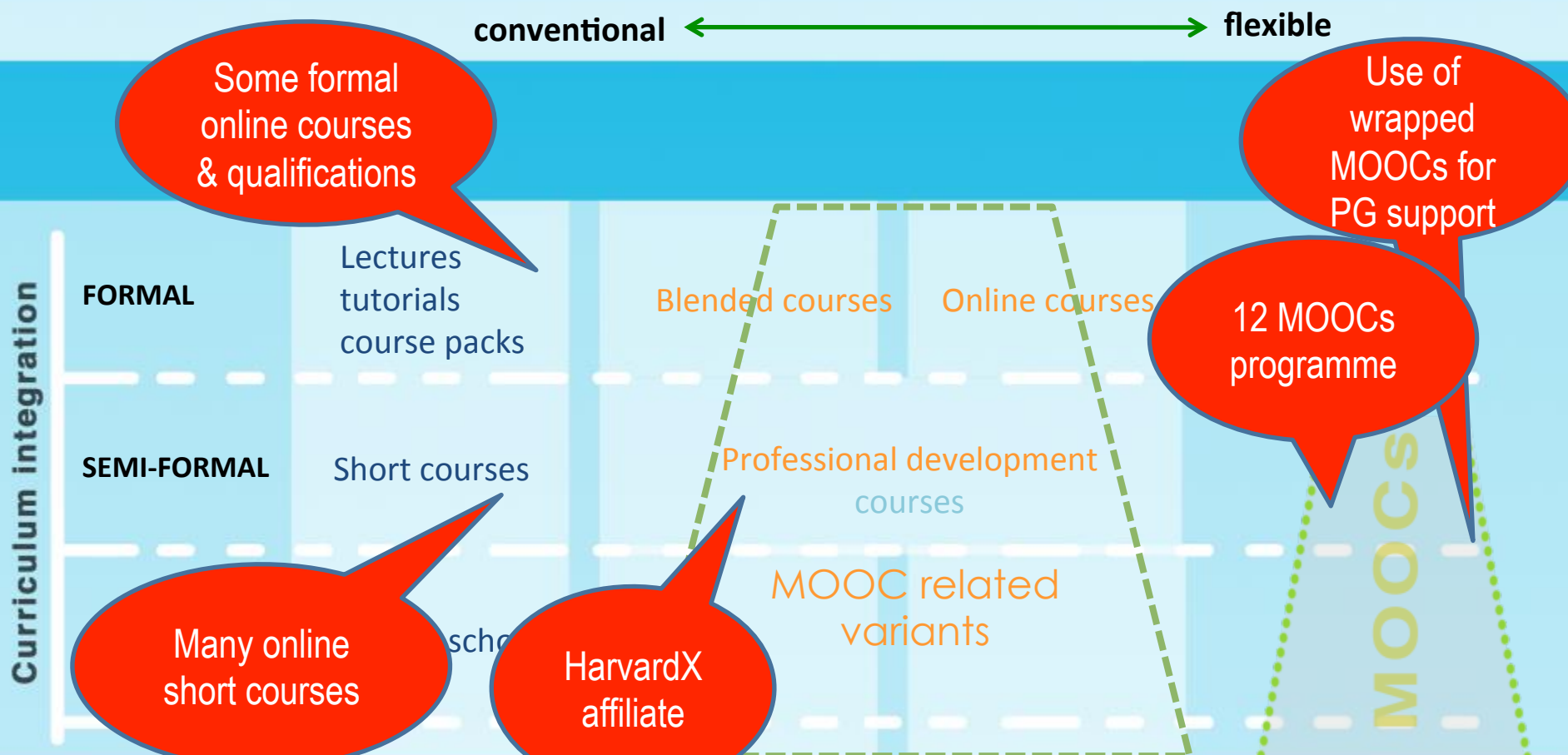
# REFERENCES



# ANNEX: A SOUTH AFRICAN CASE

University of Cape Town

# THE UCT ONLINE CURRICULUM LANDSCAPE



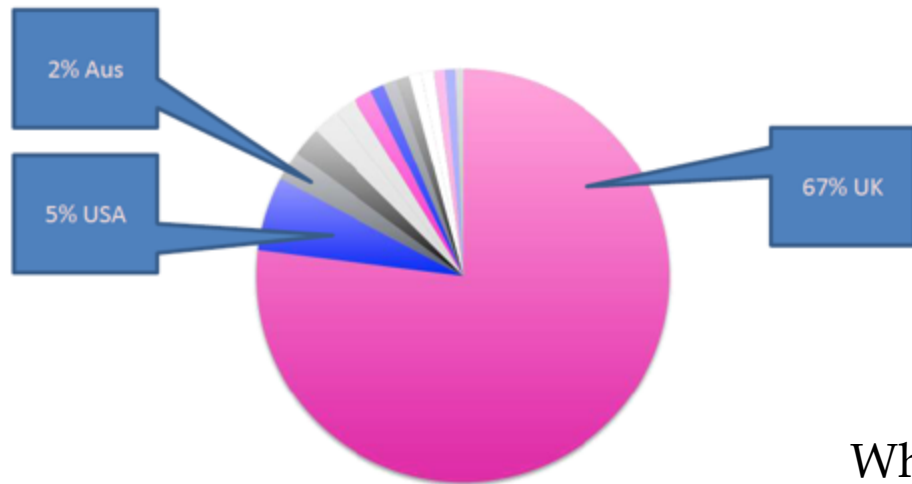
# A LOCAL CASE: MOOC LINE-UP AT UCT

## 12 MOOCs planned: first seven....

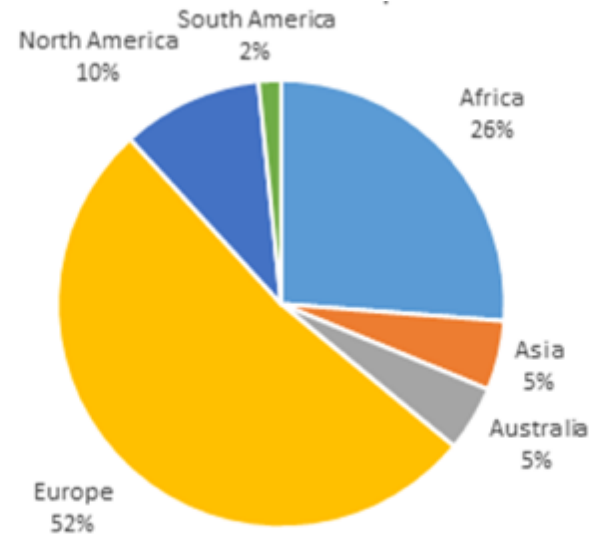
<b>Medicine &amp; the arts</b>	Globally focused , promoting Southern theory on medical humanities, inovation in resource constrained environments
<b>What is a mind?</b>	Emerging field of neuropsychanalysis is a global agenda; lead academic international figure in emerging field
<b>Conducting Clinical Research</b>	Generic content, Developing country focused, local examples. Data sets related to SA health issues. Use for credit bearing course & MOOC .
<b>Applied statistical modelling</b>	Generic content, Developing country focused, with local examples. Use for credit bearing course & MOOC .
<b>Mitigating climate change in developing countries</b>	Developing country focused; developing country examples from Africa & Latin America
<b>Understanding inclusive education in low-income countries</b>	Developing country focused; African country materials - in co-operation with NGO
<b>African Start-Ups: Social Innovations changing the continent</b>	Developing country focused; developing country examples. Focused on providing inspiration to aspirant entrepreneurs through exposure to African case studies.

# FIRST MOOCs

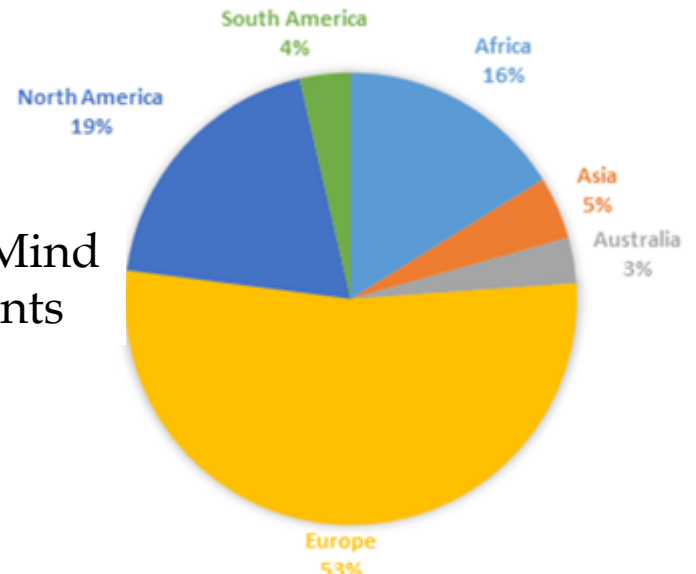
FL all courses



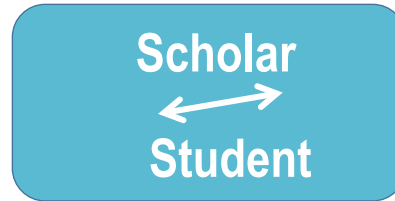
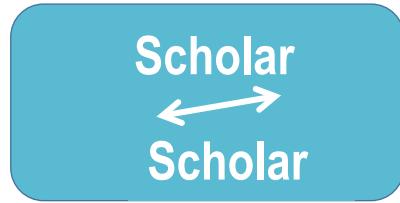
Medicine and the Arts participants



What is a Mind participants



# OPEN EDUCATION AT UCT



2007



**Opening Scholarship**

2008

2009

2010

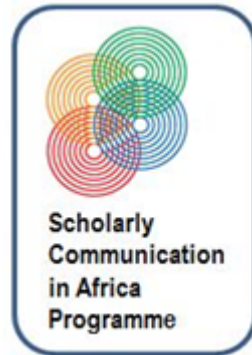
2011

2012

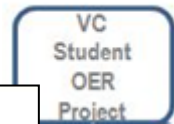
2013

2014

2015



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Teaching



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# RESEARCH ON OERs IN THE GLOBAL SOUTH



19 projects in 25 countries <http://roer4d.org/>

