Educação aberta à distância e o desenvolvimento sustentável na África

Olugbemiro Jegede
Thanks to ESUD2018 for the invitation. It is an honour to visit Brasil and Natal the City of the Sun.

Carlos, Alexandre, Maria & Fabiola made it happen.

Right step for ESUD to inquire what other regions of the world are doing about SDG4, LLL to guide Brasil

The advantage of speaking last at a conference.
Focus

✓ Introduction
✓ Education and Development
✓ 21st Century World: SDGs & Life Long L for All
✓ Global & Continental Initiatives
✓ Indices of Indispensability
✓ Using ODeL and OER as tool and pathway
✓ Challenges of Higher Education in Africa
✓ Preparing for the Future: Waves of Change
✓ Conclusion
Global Dilemma

- 20th & C21st global changes
- Provide two contrasting aspects of humanity: development and doom
- Search for peace, cure for AIDS, life XX
- War, catastrophes, digital divide
- Education identified as solution
The Questions

- Why educate everyone?
- Why LLL for All?
- Why remove disparities in educational access?
- Why search for alternative delivery modes
- Why look for flexible and cost effective means?
Cristovam Buarque, the Brazilian Minister of Education says that,

‘the twenty-first century has arrived and there is a consolidated critical mass ready to move forward’ (p.5, 2003).

The instrument re-identified, is education.
“Education is the most powerful weapon which you can use to change the world.”

“No country can really develop unless its citizens are educated.”

Nelson Mandela, an anti-apartheid revolutionary, former South Africa President, and Nobel Peace Prize awardee
Obvious Characteristics of Sub-Saharan Africa
POPULATION
- Over 1.2 billion, 75% rural
- 3% population growth
- The world’s youngest region.
- Have 30% of the world’s poorest people.

EDUCATION
- 45% of the population are children under 15 years
- Higher Educ need 465,000 academics
- Weak STEM base
Differences & Similarities

Country Vs Continent

Higher Education in Brazil

Some of them are going towards this way, but the educational materials are still lacking appropriate adaptation. Simply an educational resource that incorporates a license that facilitates reuse is considered an OER. OER is the key differentiator between an OER and any other educational resources. It means also new organizational models. It means that any other educational content initiatives in Brazil are not yet full OER experiences. In its transition towards a knowledge economy, education plays a key role in lifelong learning. The quality of education must rethink the didactic and pedagogical practices to develop new approaches. It means also new organizational models. To harness the potential of OER to support the human capital and potentially lead in the recently published in the Knowledge Economy Network, Brussels Knowledge Economy Network, Brussels report, it is essential to consider the potential of OER and focus on the users of OER. In part, the Brazilian government has indicated that in Brazil approximately 11% of internet users are following some sort of educational contents, which are high school graduates but did not attend college. It is expected that the number of students in between 25 to 39, which are high school graduates but did not attend college, will continue to rise. The lack of free access to higher education as the only way to get there, is a big problem. OER is offered by distance learning continues to show good results, the national exams applied by the Brazilian government for their undergraduate studies via distance learning course which leaves great potential for growth. One of the problems however is the issue of access to high quality educational materials which are high school graduates but did not attend college. Open Educational Resources and Distance Learning in Brazil

Weekly Brief No.

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Africa is 3.5 times the size of Brazil

Africa: 30.37 million km²
Brasil: 8.5 million km²
Data Sources
| **Population** | 1.3 billion  
E-9: Nigeria, Egypt | 212 million – E9* country  
| **Division** | 56 independent countries | 26 States in the Federation  
| **Economy** | Still rudimentary  
Main stay: Oil, Mineral Resources | Oil, now diversified.  
Coffee, Tourism, sugarcane, ethanol. Newly Industrialised.  
| **Languages & Groupings** | Over 1,000 ethnic groups, 5 main African Union official languages | Numerous tribal nations, Multicultural, ethnically diverse  
| **Higher Education** | 1,600 HEIs | 2364 HEIs  
| **Brazil** | 360 ODeL  

*E-9: Bangladesh  Brazil  China  Egypt  India  Indonesia  Mexico  Nigeria and Pakistan*
<table>
<thead>
<tr>
<th>Africa</th>
<th>Brazil</th>
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<tbody>
<tr>
<td><strong>ODeL institutions</strong></td>
<td><strong>UniRede Network - Virtual University of Brazil.</strong></td>
</tr>
<tr>
<td>14 Open Universities, 65 Dual Mode, Pan African Virtual &amp; E-Learning University</td>
<td></td>
</tr>
<tr>
<td><strong>Association</strong></td>
<td><strong>ESUD -Brasileiro De Ensino Superior A Distancia</strong></td>
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<tr>
<td>African Council for Distance Education (ACDE)</td>
<td></td>
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<tr>
<td><strong>Culture &amp; Tradition</strong></td>
<td><strong>Very well respected, Music &amp; Dancing</strong></td>
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<tr>
<td>Very well respected, Music &amp; Dancing</td>
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<tr>
<td><strong>Sports</strong></td>
<td><strong>Football Crazy</strong></td>
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<td>Football Frenzy</td>
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<tr>
<td><strong>Corruption</strong></td>
<td><strong>In the system</strong></td>
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<tr>
<td>Massive &amp; life style</td>
<td></td>
</tr>
<tr>
<td><strong>Poverty &amp; Illiteracy</strong></td>
<td><strong>About 50% of the population</strong></td>
</tr>
<tr>
<td>At least 75% of the Population</td>
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</tbody>
</table>
Illiteracy & its price
Education and Development

- clear relationship between a country’s institutional governance frameworks, economic progress and education offered to its people.

- Level of development in Africa related to the level of education

- Illiteracy, poverty, low development indices have roots in low level of education
Security and Fairness

- ‘human history becomes more and more a race between education and catastrophe’ (HG Wells)

- ‘human insecurity comes in many forms. The most basic and lethal are illiteracy and innumeracy’ (Amartya Sen)

- ‘only the well educated will be able to act effectively in the Information Society’ (Michael Barber)
Redemption Song

Bob Marley

- Old pirates, yes, they rob I,
  Sold I to the merchant ships
  Minutes after they took I
  From the bottomless pit

- But my 'and was made strong
  By the 'and of the Almighty
  We forward in this generation
  Triumphantly

- Won't you help to sing
  These songs of freedom?
  'Cause all I ever have
  Redemption songs
  Redemption songs

- Emancipate yourself from mental slavery
  None but our self can free our minds
  Have no fear for atomic energy
  'Cause none of them can stop the time
  How long shall they kill our prophets
  While we stand aside and look?
Goals of the C21st

- sustainable development
- highly educated, mobile and adaptable workforce
- multi-skilled and multi-tasked
- a knowledge and a learning society
- use of ecological and geographical conditions to continental advantage
Recent Imperatives on H.E and Sustainable Development

- Global and regional agendas have risen up to the challenge of using education for sustainable development.
  - Education 2030 Framework for Action (FFA).
  - SDG Goals
  - The 2015 United Nations Paris Climate Change Conference (*Conference of Parties 21*),
  - Agenda 2063 (AUC/ENECA/NEPAD), and
  - Continental Education Strategy for Africa (CESA 2016-25).
On 25 September 2015, the United Nations General Assembly formally adopted the universal, integrated and transformative 2030 Agenda for Sustainable Development, along with a set of 17 Sustainable Development Goals and 169 associated targets.
### TABLE 0.1:
How education is typically linked with other Sustainable Development Goals

<table>
<thead>
<tr>
<th>Goal 1</th>
<th>Education is critical to lifting people out of poverty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 2</td>
<td>Education plays a key role in helping people move towards more sustainable farming methods, and in understanding nutrition.</td>
</tr>
<tr>
<td>Goal 3</td>
<td>Education can make a critical difference to a range of health issues, including early mortality, reproductive health, spread of disease, healthy lifestyles and well-being.</td>
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<tr>
<td>Goal 5</td>
<td>Education for women and girls is particularly important to achieve basic literacy, improve participative skills and abilities, and improve life chances.</td>
</tr>
<tr>
<td>Goal 6</td>
<td>Education and training increase skills and the capacity to use natural resources more sustainably and can promote hygiene.</td>
</tr>
<tr>
<td>Goal 7</td>
<td>Educational programmes, particularly non-formal and informal, can promote better energy conservation and uptake of renewable energy sources.</td>
</tr>
<tr>
<td>Goal 8</td>
<td>There is a direct link among such areas as economic vitality, entrepreneurship, job market skills and levels of education.</td>
</tr>
<tr>
<td>Goal 9</td>
<td>Education is necessary to develop the skills required to build more resilient infrastructure and more sustainable industrialization.</td>
</tr>
<tr>
<td>Goal 10</td>
<td>Where equally accessible, education makes a proven difference to social and economic inequality.</td>
</tr>
<tr>
<td>Goal 11</td>
<td>Education can give people the skills to participate in shaping and maintaining more sustainable cities, and to achieve resilience in disaster situations.</td>
</tr>
<tr>
<td>Goal 12</td>
<td>Education can make a critical difference to production patterns (e.g. with regard to the circular economy) and to consumer understanding of more sustainably produced goods and prevention of waste.</td>
</tr>
<tr>
<td>Goal 13</td>
<td>Education is key to mass understanding of the impact of climate change and to adaptation and mitigation, particularly at the local level.</td>
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<tr>
<td>Goal 14</td>
<td>Education is important in developing awareness of the marine environment and building proactive consensus regarding wise and sustainable use.</td>
</tr>
<tr>
<td>Goal 15</td>
<td>Education and training increase skills and capacity to underpin sustainable livelihoods and to conserve natural resources and biodiversity, particularly in threatened environments.</td>
</tr>
<tr>
<td>Goal 16</td>
<td>Social learning is vital to facilitate and ensure participative, inclusive and just societies, as well as social coherence.</td>
</tr>
<tr>
<td>Goal 17</td>
<td>Lifelong learning builds capacity to understand and promote sustainable development policies and practices.</td>
</tr>
</tbody>
</table>

UNESCO is entrusted to lead Sustainable Development Goal 4 (SDG4) - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all - through the Education 2030 Framework for Action (FFA).
Seven Outcome Targets

- Universal primary and secondary education
- Early childhood development and universal pre-primary education
- Equal access to technical/vocational and higher education
- Relevant skills for decent work
- Gender equality and inclusion
- Universal youth literacy
- Education for sustainable development and global citizenship

Three means of implementation

- Effective learning environments
- Scholarships
- Teachers and educators
Target 3, point 43.:
A well-established, properly-regulated tertiary education system supported by technology,

**Open Educational Resources (OERs) and distance education modalities** can increase access, equity, quality and relevance,

narrow the gap between what is taught at tertiary education institutions and what economies and societies demand.

The provision of tertiary education should be progressively free, in line with existing international agreements.
Where are we now?

Three years after........
World is not set to achieve key global education commitments until 2084.

### PROJECTIONS FOR EDUCATION 2030

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Global average</th>
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<tbody>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2042</td>
<td>Universal primary completion</td>
</tr>
<tr>
<td>2059</td>
<td>Universal Lower secondary completion</td>
</tr>
<tr>
<td>2084</td>
<td>Universal Upper secondary completion</td>
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</tbody>
</table>

**Education 2030 deadline**

**Southern Asia**

<table>
<thead>
<tr>
<th></th>
<th>2051</th>
<th>2062</th>
<th>2087</th>
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**Sub-Saharan Africa**

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<th>2080</th>
<th>2089</th>
<th>After 2100</th>
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UNESCO Says

“Education needs to fundamentally change if we are to reach our global development goals”

Press release 6, September 2016
The Africa We Need
Africa’s Future

- It is time for Africa’s emancipation
- How can learning become more inclusive and more effective?
- What radical reforms do we require?
- How do we undertake the radical rethink, in form and structure, of our education?
Indispensability of Indices
Five indices of indispensability:

- Demographic trends
- Rising enrolment
- Globalisation
- Knowledge as a commodity
- Lifelong learning

Inform the need for viable option
The Africa We Want 2063

- the AU Commission/the United Nations Economic Commission for Africa (UNECA)/the New Partnership for African Development (NEPAD) in a document called, *Agenda 2063* says by the year 2063 there should be:

- ‘created an Africa of our dreams that is prosperous, healthy, vigorous, creative and exciting’ (Versi, 2015).

- To achieve this, as has been done in other parts of the world, Africa must re-focus on using education as the fundamental and virile instrument for continental, regional and national development.
Goals of C21st HE in Africa

- **TrustAfrica** highlights that with more than 1,600 higher education institutions operating in Africa today. It is critical to:

- “Develop a high quality, massive, vibrant, diverse, differentiated, innovative, autonomous and socially responsible higher education sector that will be a driving force [in achieving the continent’s long-term development goals].”

- Produce the human capital required for the continent’s inclusive and sustainable development, democratic citizenship, and repositioning as a major global actor.”
Open Access: a 21st Century Imperative
If we are to achieve life long learning for all towards a path of real freedom, justice and equity

We must subscribe to value principles of:

- All lives have equal value
- Freedom and flexibility to choose the mode, medium, time, place, and pace of study, and
- Education is a basic need that should be accessible to all
Open Educational Practices

- Open Access
  - Inclusive and equal access to educational opportunities without barriers such as entry qualifications and ability to pay. All lives have equal value.

- Open learning
  - Ability to study and learn at anytime, anywhere and at any pace.

- Open scholarship
  - Releasing educational resources under an open licence that permits no cost, access, use, adaptation and redistribution by others.
3-Pronged Related Solutions

- Educacao aberta e a distancia e e-learning
- Aprenizado ao longo da vida e para todos
- Recursos educacionais abertos
- Open Distance and E-Learning
- Life Long Learning for All
- Open Education Resources (OER)
Mass Education

Open, Distance & e Learning:

- weapon of mass instruction
- democratises and liberalises education
- flexible and life long
- quality assured and includes all
- allows individualised learning and at own pace, time and place
Open, Distance & E-Learning

- Infrastructural Development
  - Physical facilities
  - Laboratories
- Academic Units
- Instructional Delivery
- Learner Support
- Human Resource Development
  - Capacity Building
- Information and Communication Technology
- Other Support Systems
Diversity of Learning Spaces

Temporal

Adult

Formal

Informal

Non formal

Spatial

Learning Society

Varied learning styles

Sharing with others

Self-directed learning

Flexibility in time, space, content

Home  School  Work  Retire
Lifelong learning is the "ongoing, voluntary, and self-motivated" pursuit of knowledge for either personal or professional reasons. Therefore, it not only enhances social inclusion, active citizenship, and personal development, but also self-sustainability, as well as competitiveness and employability.
Lifelong Learning

- making learning a continuous lifelong activity
- learning through a flexible, easily accessible mode
- development of a ‘Learning’ or ‘Knowledge’ Society
- global movement towards ODeL
‘Cradle to the Grave’

- Coping with the constant change in life.
- Need to successfully manage our daily living in today’s world calls for making learning a continuing lifelong activity.
- Lifelong learning, not as a privilege or a right but, a necessity for every individual
- Lifelong learning will become the norm rather than the exception as a means of getting the whole society to learn continuously – from “cradle to the grave” as some would say.
Status of ODL in Africa

- African Council for Distance Education (ACDE) established in 2005
- ACDE QA Toolkit
- 14 Open Universities (single mode)
- UNISA the oldest ODL institution in Africa (1946)
- 65 Dual mode Universities (30 in Nigeria)
- National regulatory bodies (National Universities Commission)
- National Quality Assurance Frameworks
Online Learning:

- Online Learning is very limited – only ISCED, Mozambique.
- Some universities run postgraduate programmes online.
- Some selected postgraduate programmes are offered as fully online.
- There are at least 100 foreign institutions with cross-border online learning in Africa.
Status of ODL in Africa

- **Continental Effort:**
  - Many Africa governments are now taking ODL seriously with the advent of SDG Life long learning for All
  - A number of Africa Presidents/Head of State trained through ODL – Egypt, South Africa, Zimbabwe, Nigeria, Ethiopia
  - African Union planning to establish Pan African Virtual & E-Learning University (PAVEU)
  - Slow adoption of ICT for delivering quality higher education
  - The future of ODL is quite bright in Africa
The K-Power

Knowledge as a Commodity
What are OER?

- Open Educational Resources (OER) are:
  - Technology-enabled, open provision of educational resources for consultation, use and adaptation by a community of users for non-commercial purposes”
Why OER

- Improve delivery of higher education
- Allows cutting-edge information to be readily available
- Attract interest in policy making and institutional circles
- Made freely available over the Web or Internet
- Emerging practices all world wide
Genesis of OER

- OER was originally coined during a UNESCO Forum on Open Courseware held in 2002.

- In Africa, the OER Africa emerged as part of the South African Institute for Distance Education.

- ACDE general assembly of 2008 held the first preconference discussion on OER.
OER Initiatives: Future

Mainstreaming OER

- Finalised the Development of a National Policy on Open Educational Resources.
- The OER Policy to be ratified and operational by the end of July, 2018.
- The URL is: www.nusoer.org
- By the end of this November 2017, all universities would have uploaded information about their OER materials on the website.
- Massive capacity development in OER being planned for higher education institutions, teachers and students.
- Long term future plan is to extend the OER to the lower levels of education.
Education as a Disruptive Force
Radical Reforms

- University learning should be
  - more inclusive
  - more effective, and
  - more efficient

- Replace current/cancel examination systems
- Scrap degrees, use life portfolio system
- Forget graduation – continuous learning
- Study for free
- Age no more a factor in employment
- The line between F2F and ODeL to disappear
'Our belief is that deep, radical and urgent transformation is required in higher education as much as it is in school systems. Our fear is that, perhaps as a result of complacency, caution or anxiety, or a combination of all three, the pace of change is too slow and the nature of change too incremental.'

Perhaps it is ignorance and current limitations of our thoughts...
“change is coming/has come) whether we like it or not. If we are not involved in shaping it, others will do it for us” (Eisenberg, 1998)
The Future of Learning
Learning in a Volatile World

Volatile
Uncertain
Complex
Ambiguous

Online personalised learning

Personalised online learning that opens the door to the world of long life opportunities

Theories as tools to help make better decisions

VUCA

Volatile
Uncertain
Complex
Ambiguous

World
To have a fulfilling future that is engineered by education,

Higher Education must prepare the people for:

- Prepare the people for C21st Way of Life
- Produce effective C21st Teachers
- Prepare C21st Learners to learn effectively
Global Trends & Waves of Change

- Open, distance e-learning, is now going mainstream: online, blended, open, flexible and technology enhanced learning. This will lead to **Ubiquitous Learning**.

- Digital transformation is challenging the relevance of brick and mortar educational institutions all over the world.

- New innovations are enabling a shift from personalized learning and assessment.

- Education is on the brink of a revolution caused by convergence of research. Education, Cognitive Psychology and Neuroscience: powerful advances in optimizing online learning experiences.

- Skills and employment, are hot topics in all regions. **Life long Learning** is becoming more important than ever.
Waves of Change in Learning

- System-Determined Learning:
  - Predetermined content, time and pathway by the system

- Personalised Learning:
  - Ego-based learning for self, determined by self, society directed
  - Online learners have power over content, time and place of learning

- Trans-Personal Learning:
  - Eco based earning for self, society, leisure and life
  - C21st skills

Perceived utility of Education

- Existing system of Education
- Emerging system of Education – Ego based
- About to emerge system of education – Eco based
C21st Skills
Skills for the 4th Industrial Revolution

- Soft Skills: sharing, negotiating
- Combine mathematical and interpersonal skills

Top 10 skills

<table>
<thead>
<tr>
<th>in 2020</th>
<th>in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Complex Problem Solving</td>
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</tr>
<tr>
<td>2. Critical Thinking</td>
<td>2. Coordinating with Others</td>
</tr>
<tr>
<td>3. Creativity</td>
<td>3. People Management</td>
</tr>
<tr>
<td>4. People Management</td>
<td>4. Critical Thinking</td>
</tr>
<tr>
<td>5. Coordinating with Others</td>
<td>5. Negotiation</td>
</tr>
<tr>
<td>6. Emotional Intelligence</td>
<td>6. Quality Control</td>
</tr>
<tr>
<td>7. Judgment and Decision Making</td>
<td>7. Service Orientation</td>
</tr>
</tbody>
</table>

Source: Future of Jobs Report, World Economic Forum
Figure 1. The nine categories of the Future Preparedness Framework

4th Industrial Revolution Readiness
- Innovation
- Digital readiness

Economic Readiness
- Human capital
  - Health
  - Education
- Infrastructure readiness
- Economic agility

Security
- Physical security
- Environmental security

Social Cohesion
- Intergenerational balance
  - Equality of opportunity
  - Demographic risks
- Social fabric
  - Social capital
  - Shared long-term vision
Conclusion
Specific Messages

- Prepare for the future thro ODeL, SDGs, OERs & C21st Skills

- Quality first: quality digital, open and flexible education

- Collaboration: at all levels, on content, courses programmes, methodologies, infrastructure, internationalisation….

- Take leadership: for the future we want – lead educational transformation
Three Little Birds
Bob Marley

- Don't worry about a thing
  'Cause every little thing gonna be alright
  Singing' don't worry about a thing
  'Cause every little thing gonna be alright

- Rise up this mornin'
  Smiled with the risin' sun
  Three little birds
  Pitch by my doorstep
  Singin' sweet songs
  Of melodies pure and true
  Sayin', this is my message to you

- Singin' don't worry 'bout a thing
  'Cause every little thing gonna be alright
  Singin' don't worry (don't worry)
  'bout a thing
  'Cause every little thing gonna be alright

- Singin' don't worry about a thing
  'Cause every little thing gonna be alright,
  I won't worry
  Singin', don't worry about a thing, oh no
  'Cause every little thing gonna be alright
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Thank you
Boa Tarde
Tchau