HEM



From closed to Open Innovation

A Game Changer for Value





3 DECEMBER, 2020

VIRTUEL EVENT

Opening Session

11H00 -11H30 Higher Education distant learning in Africa: From closed to open innovation, what place is there for frugal innovation?

Keynote Speaker



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Higher Education Distant Learning in Africa: From Closed to Open Innovation, what place is there for Frugal Innovation?





Evolution of global Business

Evolution of management education

Drivers of Global Reputation

Innovation: A growth mindset

Frugal Innovation

Innovative Business Education

Africa, the continent of the 21st century

On-line delivery of courses using Frugal Innovation



Evolution of Global Business

| Time | Up to the 19th Century | 20 th Century | 21th Century |
|-----------------------|------------------------|--------------------------|----------------------------|
| Business Model | Land Acquisition: | Free Market Competition: | Human Capital Development: |
| | Colonialism | Capitalism | Entrepreneurialism |
| Players | Countries | Corporations | Citizens |
| Metrics | Power | Profits | Purpose |
| (Impact) | (Strength) | (Success) | (Significance) |



Evolution of Management Education

| Time Period | Up to mid 1960s | Late 1960s to late 1990s | 2000 and beyond |
|---------------------------|----------------------|-----------------------------|---|
| Focus | Business Relevance | Academic Excellence | Academic Excellence, Business Relevance and Social Significance |
| Pedagogical Tools | Case Studies | Analytical Frameworks | Experiential Global Learning |
| Decision Making Inputs | Judgment & Intuition | Analytical Models | Business Ethics, Sustainability and CSR |

| | Education 1.0 | Education 2.0 | Education 3.0 |
|---|---|--|--|
| The meaning of things is | Imposed and dictated | Socially constructed | Socially constructed and contextually reinvented |
| Smart devices (phones, tablets, and phablets) are | Confiscated at the entrance of the classrooms | Adopted with caution | Everywhere (an ambient digital universe) |
| The course is taught | Professor to learner | Professor to learner and learner to learner | Professor to learner Learner to learner Learner to Professor People-IT-People |
| The School is located in | A building (Brick) | A building and online (Brick and Click) | Everywhere (infused in society; Coffee shop, Home, Library, etc.) |
| Parents consider the School as | Day Care | Day Care | A place for them to learn too (lifelong learning) |
| Professors are | Licensed Professionals or (Ph.D. holders) | Licensed Professionals or (Ph.D. holders) | Everybody, everywhere |
| Hardware and software in schools | Are purchased at great cost and ignored | Are open source and available at lower cost | Are available at low cost and used purposively |
| Industry views graduates as | Assembly line workers | As ill-prepared assembly line workers in a knowledge economy | As co-workers or entrepreneurs |



Learners of the 21st century

Let's meet the modern learner!

On-the-go | On-demand | Always-on

Do most of their work 30% somewhere other than employer's location Takes ownership to search online 70% for solutions to problems, and learn new skills related to work 15 hrs. Media consumed per day

Gnowbe Paradigm Shift in Corporate Learning



Drivers of Global Reputation

Leadership



Innovation Growth



Higher education focus on Innovation

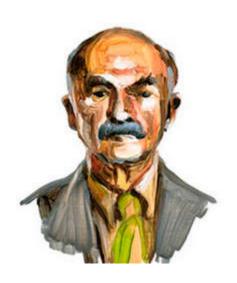
- "Leadership myopia" caused by years of operating in the same industry can prevent breakthrough thinking.
- Higher Education Institutions (HEI) will benefit if their leaders can shift priorities and genuinely place innovation at their organization's cultural heart.
- There is more a need for a leadershift than a leadership to face relentlessly shifting higher education trends

 NEW APPRO

NEW APPROACHES
INTERDISCIPLINARY COLLABORATION
FOSTERING INNOVATION
ALIGNING WITH COMMUNITY NEEDS
INNOVATING ECOSYSTEMS
EMBRACING RISK
CONNECTING PEOPLE AND IDEAS



Innovation: A growth mindset



"Creativity is thinking up new things. Innovation is doing new things."

Theodore Levitt

Innovation is the act of turning new or existing ideas into reality. It is the ability to perceive the world in new ways, to find hidden patterns, to make connections between seemingly unrelated phenomena and to generate solutions.

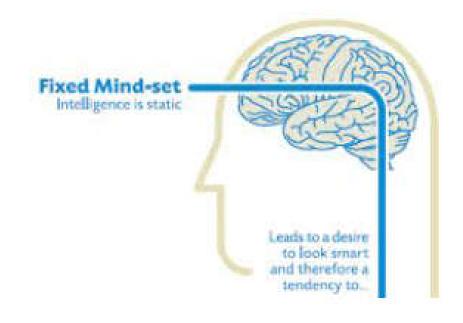
Theodore Levitt puts it best: "What is often lacking is not creativity in the ideacreating sense but innovation in the action-producing sense, i.e. putting ideas to work."

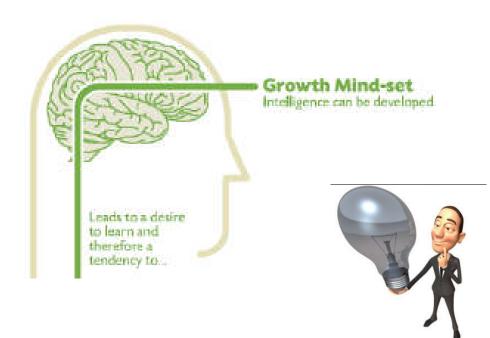
France, for instance, is ranked 6th in terms of the number of patents registered, but only 24th for innovation (WIPO 2012 rankings). Why such a gap?



Innovation: A growth mindset

- Innovation does not occur suddenly or by chance, it results from long-term iterative processes that integrate ingredients, procedures and outcomes.
- It is necessary to encourage HEI to strongly stimulate their long-term capacity to innovate







What is Frugal Innovation?

- Etymologically, the word "frugal" derives from the mid-sixteenth-century Latin word frugalis. Frugality is the principle of being economical with the limited resources at hand.
- Frugal innovation offers the ability to generate considerably more business and social value while significantly reducing the use of scarce resources (Radjou, Prabhu, 2013). It is about a mindset of doing more with less.
- Frugal innovation is rooted mostly in developing countries, in the mindsets of Jugaad in Hindi or Shanzai in Mandarin (Radjou et al., 2012; Brem, Wolfram, 2014)
- Frugal innovation gives birth to improvised solutions as a result of ingenuity and cleverness
- Value and affordability are the key drivers of Frugal Innovation.



Characteristics of Frugal Innovation

- Low cost and affordability
- Low cost of use
- Simple design and reduced technological complexity
- Low technical content and Easy to use for everyone
- Should be able to work in a hostile or degraded environment (health risks, dust, irregular power and water supply, poor infrastructure...)
- Oriented toward the needs of BOP without any extra functionality.

N.B. The low cost of frugal innovation does not mean low quality or inferior performance; it is more affordable excellence



Examples of Frugal Innovation

- Electrocardiograph MAC 800 by GE in India
- M-Pesa by Safaricom in Kenya-East Africa helped bring banking to 58% through mobile banking;
- As of Dec-2018, 32 million Africans have used the M-Pesa platform.
- Mobil banking solution by MobiNile in Egypte where less than 14% of the population have traditional bank accounts.
- E-Gov frugal solutions in Morocco and Gabon (Biometric ids)
- Simple and frugal solutions to manage electorate lists in Benin and Burkina Faso



Innovative Higher Education

- It is not sufficient to be a provider (there are about 17,000 educational institutions worldwide providing business education degrees, the number has grown from around 11,000 since 2009)
- To play A role, it is necessary to become a provider of quality and innovative business education.



Web-based learning

digital collaboratio

Virtual classroom

electronically

On-line delivery of courses

- Demand for on-line delivery of courses is gaining momentum more than ever with Covid19.
- Many institutions in every part of the world have started offering part of their course on-line on trail basis (blended learning) especially with the start of the

pandemic.



Where does Africa stand in all this?





Africa the continent of the 21st



In June 1994, Nelson Mandela described the promising landscape of the new Africa as follows:

"We must face the question squarely:
where there is something wrong
with the way we govern ourselves, the
fault does not come from the other
but from ourselves;
it is that we are ill governed."



Key Features: Diversity

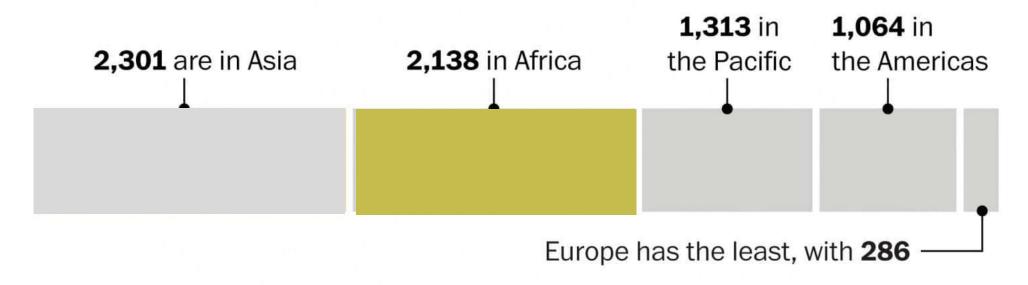
| | Africa | North America | Europe |
|------------|-------------|---------------|-------------|
| Countries | 54 | 3 | 44 |
| Population | Approx. 17% | Approx. 8% | Approx. 11% |
| Youth | 41% | 19% | 16% |

Source: Population Reference Bureau



Key Features: Diversity

There are at least **7,102** living languages in the world.



Sources: Ethnologue: Languages of the World, Eighteenth edition THE WASHINGTON POST



Africa's Challenges



- None of Africa's problems is beyond the means and resources within the continent. What has largely lacked is proper policy making and implementation.
- Healthcare, security, political stability, and development projects are all affected by poor governance.
- Corruption is endemic to the way of life in much of Africa. The effect has been great inequalities.
- There is a surge of unemployment especially among the youth. This in turn contributes to lower family incomes with many dependents, crime due to joblessness and a host of other social issues.
- Population Growth: While the average world fertility rate is 2.5 children per woman, in Africa it is 4.7 children per woman



Population Forecasts

Countries With Greatest Percent Projected Growth, Age 15-24

Democratic Republic of

44% the Congo

41% Uganda
United Republic of

40% Tanzania

36% Nigeria

34% Afghanistan

30% Kenya

28% Sudan

27% Iraq

22% Ethiopia

13% Egypt

Countries With Greatest Percent Projected Decline, Age 15-24

-28% Republic of Korea

-17% Poland

-14% Malaysia

-13% Vietnam

-13% Germany

-12% Thailand

-12% China

-12% Ukraine

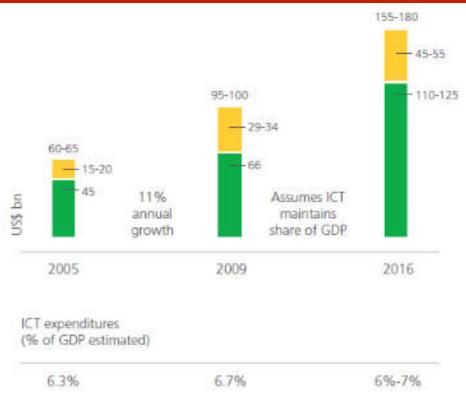
-10% Brazil

-9% Uzbekistan

(min. projected population of 20 million)



The International Telecommunications Union (ITU) ranks countries according to their progress in ICT access, use and skills in its annual ICT Development Index (IDI). The 2017 findings show that of the bottom 20 countries worldwide, 17 are African.



Estimate for rest of Africa

Set of nine countries representing 65%-70% of African GDP



Africa's Energy

Africa's energy potential is enormous, yet only a fraction of it is being currently employed

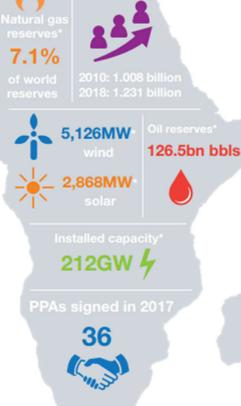
Generation*
51,598MW Natural gas
47,218MW Coal
34,442MW Hydro
21,376MW Liquid fuels

Access to Electricity
(2016)
608 million

The state of the stat

* Data of end-2017

Household electrification rate in Africa stands at just 43%, leaving 600 million people without access to electricity





Education

The lack of access to reliable electricity sources is a major impediment to both the process of industrialization and human development in African countries.

Education and training are among the major challenges facing Africa in the coming years. Given the resources and capacities available, and despite major efforts in education, most African countries have not always achieved the desired performance.

Barely 32% of young Africans have access to secondary and High education compared to 50% of access to primary education.



Potential and hope

- Africa rising; the world's fastest growing continent
- Flourishing Economies before Covid19.
- Most countries are at peace.
- Record numbers going to school.
- Foreign direct investment tripled during the last decade.
- From the world's poorest continent to one that is appreciated for its wealth of opportunities.





DATA FROM THE LITERATURE: KEY AND POTENTIAL FIGURES

- Current population: 1.3 billion people or 17% of the world population (and more than double the population of Europe) but only 3% of the world GDP.
- Africa's population is expected to double to nearly 2.5 billion by 2050.
- Between 2019 and 2023, 6 of the 15 fastest growing economies will come from Africa (Ethiopia, Rwanda, Côte d'Ivoire, Tanzania, Senegal and Ghana).
- In 2016, the number of mobile was multiplied by 4 compared to the previous decade).



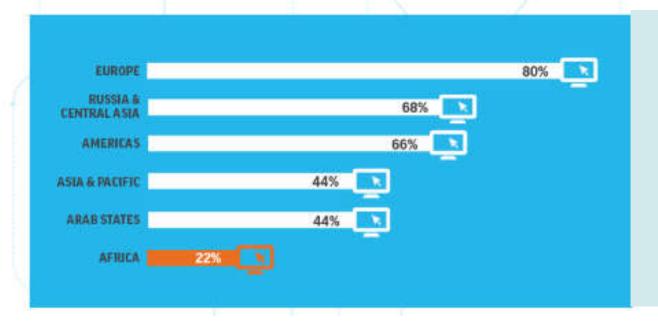


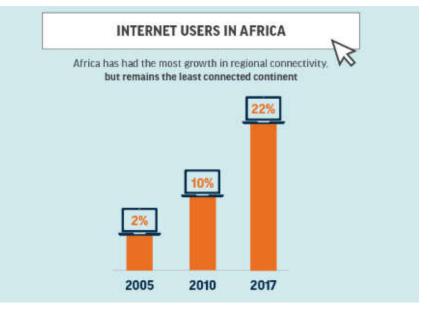




Africa's Potential

INTERNET USERS BY REGION







Africa's Potential: Students demographics

Quantitative plan

The population of learners enrolled in higher education rose from 6 million in 2000 to 14.5 million in 2017, a jump of 141%.

Growth in higher education in Africa is driven by growth in the private education sector

Qualitative plan

Strong development of short-cycle training

The Ivory Cost has a low enrollment rate in higher education and a high enrollment rate in short-cycle programs.









A Paradigm shift is needed: We can do more and better

- A paradigm shift in this education system is needed to allow, on the one hand, the necessary match between training and jobs and, on the other hand, the development of innovative solutions through the use of technology in distance learning.
- Regardless of the progress made, the statistics still tell the story of a significant lack of quality education in Africa.

What distant learning for Africa?



What Distant Learning for Africa?

We must seek to develop online / blended programs that promote interaction:

- with innovative content
- interpersonal live (synchronous) or delayed (asynchronous) sessions
- Distant learning does not mean, individual learning
- A good distance learning program requires active participation in motivating projects and collaborative work.
- In the design of a distance education, it is necessary to provide for collective learning environments
- With the reduced face-to-face, it is less a question of considering a simple transmission of information but rather of creating pedagogical and organizational conditions favorable to the learner.
- While leaving a certain autonomy in the management of the student's working time, the face-to-face time makes it possible to mark out learning (the course is organized in sequences) and offers the possibility of direct, individual and regular support for the courses.



Distant learning in Higher Ed using Frugal Innovation

Technical level Overcome electricity and internet connectivity issues asynchronous training simple e-learning platforms and easy and quick to download content Guarantee responsiveness and efficiency in technical support (or have local material and administrative support) Develop content for Africa designed for m-learning **Economia**

Content level

The content of Distant learning for Africa must be designed according to a systemic approach considering the environment of actors and partners

collaborations or solid partnerships with companies

easy and quick to downloaded content

simple e-learning platforms and

Solve the problem of recognition of the Distant Learning diplomas for graduates

Educational level

Need to consider more human aspects, sociocultural and psychoeducational dimensions

> Develop e-learning content adapted to African contexts







Distant learning for long life learning using Frugal Innovation

Technical level

Offer blended e-learning programs for executives and professionals for lifelong learning

Prompt support and expert feedback are considered key success factors for effective online program delivery.

Include an asynchronous "chat" feature

Content level

Opportunities that respond to the country-specific skills gap in a sectoral approach

Favor ultra-targeted and actionable training

Provide certificates that are recognized and accepted by major employers

Educational level

Deliver remote training to teams and not to individuals







Thank you for your attention

