

UNU/UNESCO International Conference

Pathways Towards a Shared Future: Changing Roles of Higher Education
in a Globalized World

Tokyo, 29-30 August 2007

Workshop Session 5: Access & Success

**"The Use of ICT for Increasing Access
& Improving Success in Higher
Education in Africa"**

Outline of Presentation

- African HE: Access Problem
- African HE: Success Problem
- Use of ICT in HE
 - Teaching & Learning
 - Teacher Training
 - Student Management
- Constraints & Challenges in Use of ICT in HE in Africa
- Initiatives for Revitalizing African HE
- Conclusions
- Questions for Discussion

African HE: Access Problem

- Very low Gross Tertiary Enrolment Rate
 - Sub-Saharan Africa - 5%
 - South & West Asia - 11%
 - Latin America & Caribbean - 28%
- Significant enrolment increase over past decades
1991: 1m, 1999: 2m, 2004: 3.3m
- HEIs cannot expand physically to cater for increasing demand – no State funds available
- Gender inequity in enrolment – 38% female in 2004
- Institutions (hence access) concentrated in urban areas
- Poor access to mature & disadvantaged groups
- Private Institutions – very limited enrolment & not always of quality
- CBHE – a growing sector in Africa but quality & relevance remain problematic

African HE – Success Problem

- Large failure rates – 50% in early years
- Poor language proficiency
- Overcrowded lecture theatres – reaching 1000
- Out of date curriculum & teaching methods – chalk & talk, old lecture notes
- Unacceptably high student/staff ratios – often 50:1 and even greater in some departments
- Inadequate library seating capacity - lack of books & periodicals
- Few practicals & tutorials because of large numbers
- Insufficient Lab facilities - lack of equipment & reagents
- High graduate unemployment

Use of ICT in HE

- ICT can improve both access & success in HE
- Increasing access & improving success are mutually dependent - should be considered jointly
- ICT is not exclusively computers and internet. It includes: telephones, cell phones, radio, TV, audio/video cassettes, CD-ROM, satellite broadcast, audio/video conferencing, etc.
- ICT can be effectively used in Teaching & Learning:
 - for improving face-to-face teaching & learning
 - as support in online & distance learning
 - for management of students records and progress

Use of ICT in Teaching & Learning

- Designing quality curriculum & course content by collaborating with other African institutions using ICT
- Use of loudspeakers, overhead projectors, Power Point for very large classes
- Distribution of lecture notes and support resources online
- Use of CD-ROM, audio & video cassettes, tutorials support thru emails, communication by cell phones, etc.
- Use of available open source courseware (but adapted to local context) and software
- Use of video conferencing connecting different locations to optimise use of staff (e.g Univ Cheikh Anta Diop)

Use of ICT in Teaching & Learning (Cont'd)

- LCD projection of live science practicals through close circuit TV (Univ of Ghana)
- Regular online assessment of students (Learning Management System) (Univ of Ghana)
- Use of Language Lab for improving student language skills
- Increasing access thru dual mode learning - face to face & open learning – using web-based modules (e.g. Kenyatta University, Univ of Mauritius)
- Use of radio, TV, internet, cell phone, etc. in support of print-based open & distance learning (e.g. UNISA)
- Use of satellite broadcast – VSAT - in virtual learning (e.g. used by AVU & UVF)

Use of ICT in Teacher Training

- Training of large numbers of quality teachers to meet EFA targets - greatest challenge for African HE
- 1.6m teachers required just to achieve universal primary education by 2015
- Use of ICT-enabled open and distance learning is the best solution:
 - for producing large numbers of pre-service quality teachers
 - upgrading in-service teachers in subject & pedagogy
 - training teachers in use of ICT
- ICT facilitates collaboration & networking among teachers in different centres

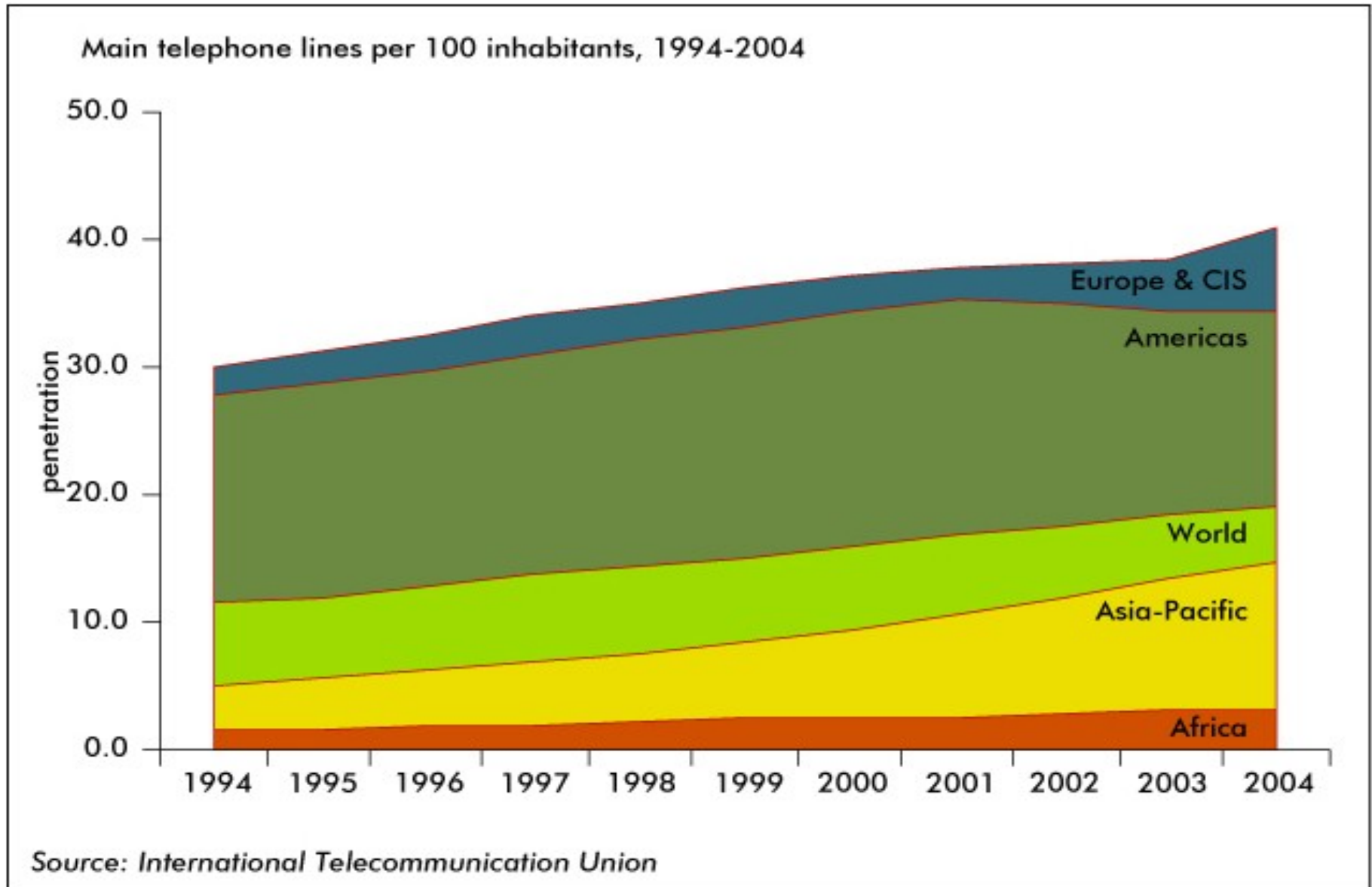
Use of ICT in Student Management

- Use of institutional website for informing course availability & facilitating student applications
- Student selection & admissions
- Record and distribution of examinations results
- Informing students of their progress (credit accumulation, etc.)
- Administrative records and data keeping
- Computer assisted time-tabling of use of lecture rooms
- Use of Library Management System
- Rapid communication between management and staff & students

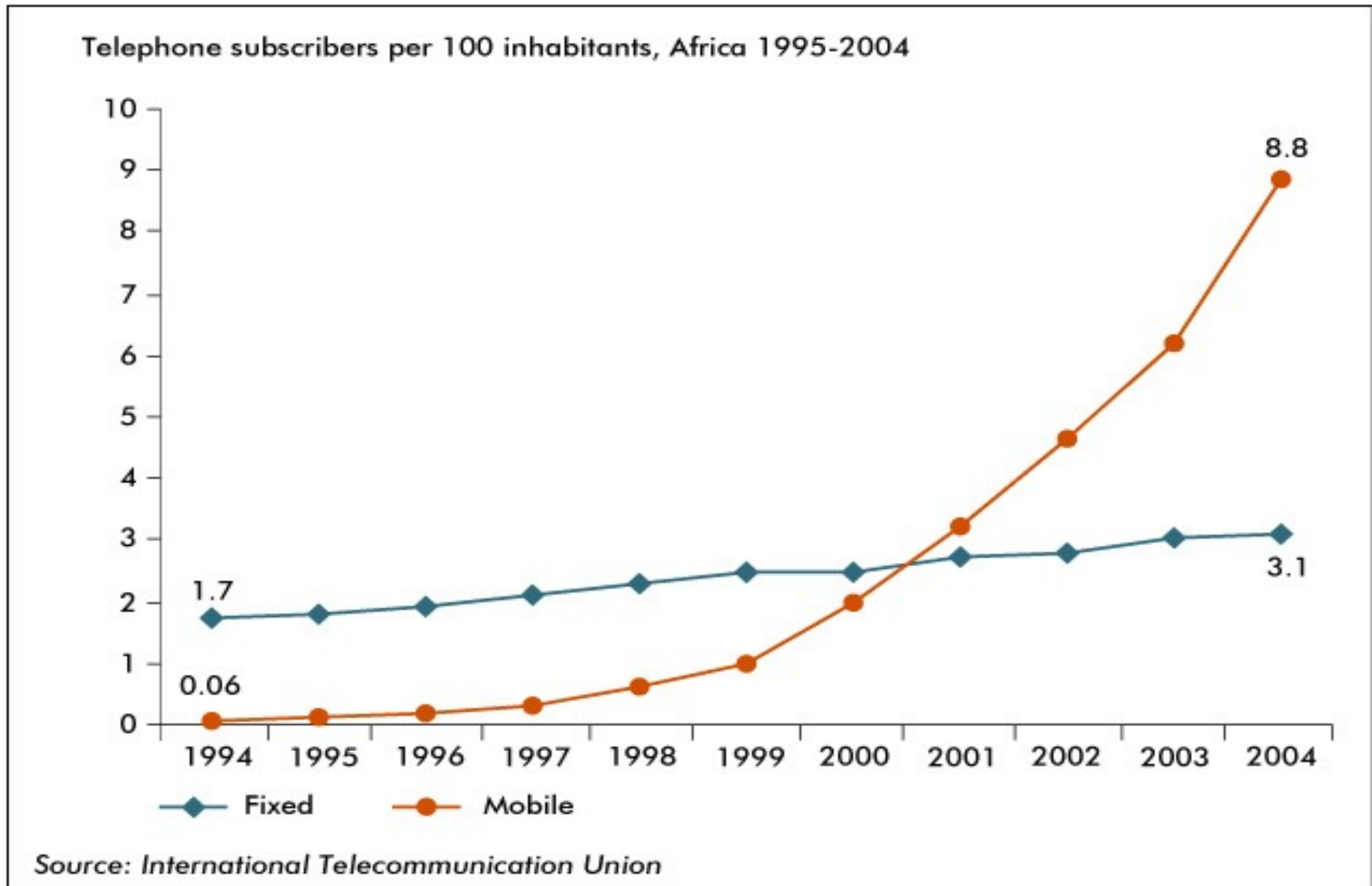
Constraints & Challenges in Use of ICT in HE in Africa

1. Poor National Information & Communication Infrastructure (NICI)

ICT Infrastructure: Global Fixed Lines Comparison

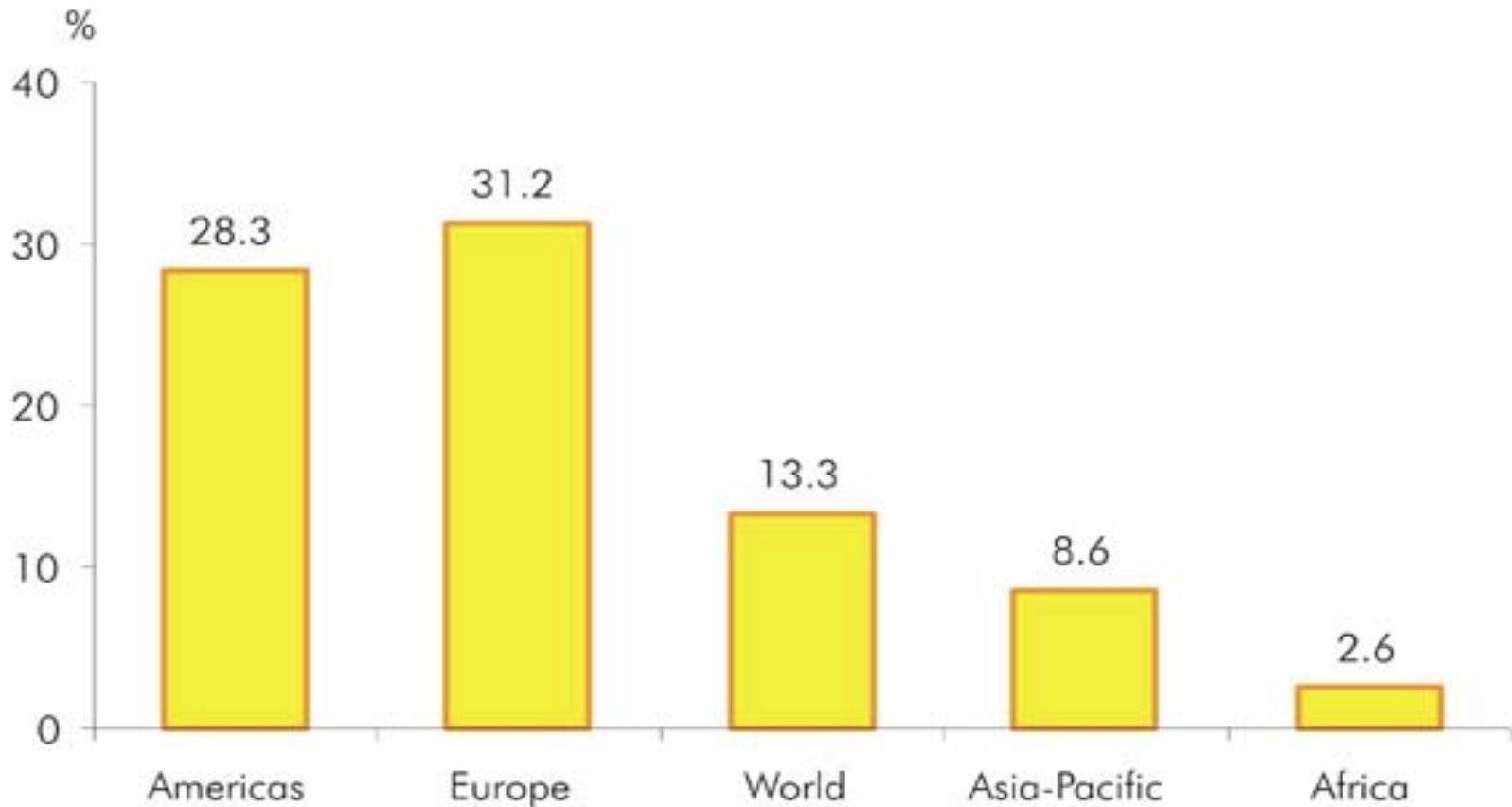


ICT Infrastructure: Fixed Line v/s Mobile Uptake in Africa



ICT Infrastructure: Global Internet Comparison

Internet penetration by region, 2004



Source: International Telecommunication Union

ICT Infrastructure: Digital Divide Within Africa

Region	Population (m)	Telephone lines/100	Mobile subscribers/100	Internet Users/100
North Africa	156	10.7	42.6	10.3
South Africa	48	9.97	71.6	10.8
Sub Saharan Africa	720	1.01	12.7	3.10
AFRICA	924	3.15	20.9	4.7

Constraints & Challenges in Use of ICT in HE in Africa (Cont'd)

2. Interrupted electricity supply
3. Lack of power supply in rural areas
4. High telecommunications costs
5. High cost of PCs and laptops
6. Low bandwidth and high cost for internet access
7. State control over ICT operators, discouraging private investment
8. Lack of skilled technical support & staff
9. Lecturers have no training in use of e-teaching & learning in HEIs
10. No enabling ICT policy at national & institutional level
11. Lack of funding

Initiatives for Revitalising African HE, including Reinforcing Use of ICT

- 'Partnership for HE in Africa'. Ford, Mac Arthur, Rockefeller, W F Hewett & Mellon Foundations plus Carnegie. \$200m over 2005-10
- 'Regional Capacity Mobilisation Initiative'. \$7m grant from DfID, UK, over 2006-2010. 'Challenge Fund' to be led & managed by AAU.
- AAU's Core Programme. \$20.4m over 2005-09
- West African Economic & Monetary Union. Support to HEIs in 8 West African Francophone countries. ADF funding over 2006-11
- SARUA. Support to HEIs in 14 SADC countries over 2007-12

Conclusions

- ICT can help to meet the increasing demand for HE & improve student retention in Africa. But ICT is not a panacea for all HE problems!
- Special attention to incorporating use of mobile phones in promoting use of ICT in HE
- Need for enabling ICT policy at both national & institutional level
- Training in use of ICT in HEIs crucial at all levels – management, technical & administrative staff, academics, students
- Lecturers to be trained in E-Teaching using UNU/Global Virtual University free online training courses
- Need for more African ICT expertise – can African Diaspora be used?
- HE to make full use of available donor funding for widening ICT use in institutions

Questions

- *How can a dramatic increase in higher education enrolment in Africa be achieved?*
- *Can the rapid, global ICT development help to bridge the digital divide between Africa and the rest of the world? If so, how?*
- *How can African HEIs make use of the Diaspora who have expertise in ICT?*
- *What should be the African HE strategy for increasing access from rural areas? Putting up HEIs or reaching out via DE/ICT from urban areas?*

THANK YOU

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Access and Success: Connecting the dots

Dr Mala Singh
Council on Higher Education
South Africa



Framing Issues

- EFA and HE
- Role of HE in social and economic development-high skills needs in developing countries
- Multiple transitions in HE-provider type, provision mode, student profile, differentiated missions, cross-border HE, relt with state (financing, EQA), stakeholder power.



Framing Issues

- Increasing access/widening participation
- Quality concerns and requirements in light of transitions-expanding access and sustaining quality
- EQA-broad and narrow approaches esp in developing country contexts

Access and Success Issues in South Africa



- Legacy challenges-race and affordability exclusions, small numbers of graduates, limited fields, low end qualifications
- New challenges-poor schooling, HE affordability, HIV Aids, reform volatility, unreconstructed role-players and systems.
- Going beyond equity of access to equity of outcomes
- Quality requirements-role of QA



Access profile in South Africa

- Only 5% of school cohort with HE exemption (Scott et al, 2007)
- Overall participation rate in HE 15% in 2001, target set for 20% over next decade
- Participation rate only 16% in 2004/5 with 12% for African, 61% for White students
- Private HE-less than 10% of HE total



Success Profile in SA

- Study of 2000 cohort 5 years after entry
- 2004-overall 30% graduated, 56% dropped out, 14% remained in system
- DE univ. 14% graduated, 59% dropped out and 27% remained-challenge to access claims of increased DE
- Gaps between completion rates for blacks and whites in all subject fields
- Huge human and financial loss(65,000)

Access and Success Challenges



- Increase enrolments and throughputs
- Increase range of fields (esp SET) and higher level PG qualifications
- Greater diversity iro race, gender and class
- Appropriate skills and competencies for social and economic development
- Efficiency and effectiveness



Access and Success Factors

- Systemic factors-schooling, policy frameworks, resourcing, social crises, language diversity, etc.
- Institutional factors-alternative access, bridging and extended programmes, infrastructure, curriculum reform, new pedagogies, staff competencies, institutional culture, etc.



SA QA Requirements

- Responsiveness to national priorities-
planning, resource allocation and QA
- Institutional and programme focus
- Teaching and learning focus
- Criteria for input, process and outcomes
- Focus on and investments in capacity
development



Access with Success

- Multiple strategic interventions at all levels-the obvious and the less obvious
- Responsibilities for government
- Responsibilities for institutional leadership
- Responsibilities for QA

UNU/UNESCO International Conference

**PATHWAYS TOWARDS A SHARED FUTURE:
CHANGING ROLES OF HIGHER EDUCATION
IN A GLOBALIZED WORLD**

29-30 August 2007

UN House, Tokyo

Thursday, 30 August 2007

Day 2: Workshop “Globalization and Higher Education: Challenges and Opportunities”
Tokyo UN House

09:30–10:00 Opening Plenary Session

Opening remarks and clarification of the workshop structure, objective and aims

Co-Chairs: Hans van Ginkel, Rector, UNU and Hans d’Orville, Director, Bureau of Strategic Planning, UNESCO

10:15–13:00 Parallel Workshops Sessions

N.B. Each of the workshops will have two or three presenters to introduce the salient issues in each of the workshops, followed by one or two commentators. The Afternoon meetings are reserved for discussions to identify points of view, suggestions and recommendations. These can be elaborated in the future and contributed to e.g. the WCHE+10 / WCS+10 process.

WORKSHOP SESSION 5: Access and Success

Rapporteurs: TBC

Chair: Eva Egron-Polak, Secretary-General, International Association of Universities (IAU)

Presenters:

- Mohamedbhai Goolam, President, International Association of Universities (IAU) (former Vice-Chancellor, University of Mauritius, Mauritius)
- Mala Singh, Executive Director, Higher Education Quality Committee of the Council on Higher Education, Pretoria, South Africa and Vice Chair of the Regional Scientific Committee for Africa, UNESCO
- Paulo Speller, Political Scientist, Rector of the Federal University of Mato Grosso (UFMT), Cuiabá
- Nagao Masafumi, Professor, Center for the Study of International Cooperation in Education, Hiroshima University

Alternative presenters:

To be identified by Dr. Eva Egron-Polak

13:00–14:30 Lunch Break

14:30–16:00 Parallel Workshops Sessions
(Discussions continued: Policy Recommendations)

16:00-16.30 Coffee Break

16:30-18.00 Plenary Session

Co-Chairs: Hans van Ginkel, Rector, UNU and Hans d’Orville, Director,
Bureau of Strategic Planning, UNESCO

- Reports of the working groups
- Discussion of conclusions

Access and success to higher education in Latin America and the Caribbean: the case of Brazil, opportunities and challenges

Paulo Speller, UFMT, Cuiabá, Brazil

1. Education as a privilege of the elites in LAC. Colonial background of HE in LAC: Spain, Portugal, UK, France, Holland: compare absence, early Spanish initiatives, Portuguese ties in Europe, restricted presence of other countries. Compare with English and French strategies in North America.
2. Basic Education in LAC: a case of failure, despite comparatively “advanced” experiences in southern cone: the real challenges.
3. Universalization of access to primary and secondary education: registration x permanence, the issues of literacy and quality, permanent challenges.
4. Access to higher education: a most recent challenge, diversification, deterioration, new institutions, new courses, interiorização.
5. Lula, the president who has not accessed university, the one who is democratizing access and success to basic and higher education in Brazil.
6. Ten challenges to education in LAC: (1) eradication of illiteracy, (2) access to and (3) permanence in pertinent basic education, (4) access to and (5) permanence in diversified higher education, (6) consolidation of a system of graduate studies and (7) research institutions, (8) emphasis on knowledge and (9) innovation, (10) opportunities to permanent education.

ABSTRACT

The first letters of education have been a restricted privilege to the élites in the “New World”. Access to higher education was inexistent and only a few were sent to the metropolises, where they had entry to universities in Europe. A number of initiatives were undertaken by Spanish colonial rulers in the Americas, yet strategically limited in number and scope. British and French rulers confined their initiatives to North America. The Portuguese crown was reluctant and only lately opened schools of law and medicine, but no university was inaugurated in the Brazilian colony.

Independent LAC countries frustrated the dreams of access to primary education and HE had only limited developments. Education remained a privilege of the élites. Industrialization and modernization in the northern hemisphere did not contaminate LAC and had no significant effects on basic and higher education. The southern cone experienced a differentiated experience, where education in general was positively affected by economic growth and political stability. Isolated experiences took place; such is the case of Costa Rica, in Central America.

Contemporary LAC still faces the basic challenges of eradicating illiteracy and providing access to and permanence in pertinent primary education. Secondary and vocational education remain major challenges. Universal access to basic education is the focus of most recent initiatives, the results have been limited, in general, to registration rather than permanence in school and pertinence of education. Cuba remains an exception not replicated whatsoever.

Higher education remains limited in access and infrastructural investment as well as qualified staff are poor in most countries. Private institutions have spread out all over the continent as a strategy to attend the demand of the market. The landmark of this tendency is the military coup in Chile in 1971, after which neoliberal policies restricted and rationalized public investment in HE and regulation was flexibilised to allow a surge in low-cost private institutions whose main commodity are diplomas and certificates, not always valued by the market of employment and opportunities. HE schools may be found in every corner of larger cities and even in smaller towns in the countryside. Distance and open education have added substantially to this tendency, as diplomas and certificates may be provided everywhere in the continent. Statistics of access to HE should be seen in a more cautious way, therefore. Pertinence and academic quality may still be found in isolated private institutions and in public universities, where access is much more limited, again, to an élite. Exceptional resistance to this process may be found in Argentina and Mexico, major examples where registration in public institutions outnumber its counterpart in private school, despite the rise of commercial HE in both countries. Again, Cuba is the radical positive exception.

Brazil is a paradigmatic example of the process of rise in private and commercial HE, especially after the military coup in 1964. Before the coup, HE was restricted to public universities and very few catholic and private institutions, mostly considered academically of acceptable quality, restricted to the sons of the economical and political élités. Privatisation of HE was exacerbated most markedly during the government of President

Fernando Henrique Cardoso (FHC, 1995-2002), when a surge in new private institutions took place and registration in public universities was lowered to 30% of the total share.


Lula polemical statement during his presidential campaign in 2002 marked a significant change in federal policies of HE in Brazil, when he said that “caberá a um presidente sem diploma o papel de dar geito na universidade pública brasileira” (“it will be the task of a diplomaless president to settle the mess in public universities in Brazil”). In addition to the private character of expansion, Brazil occupies a very uncomfortable position in the statistics of the continent, as only 10% of our 18-24 cohort has actual access to HE. The highly elitist character of HE in Brazil represents therefore a most unease issue in the country. Also, it shouldn't be forgotten that all public and independent assessments of HE in Brazil were (and still are) unanimous in demonstrating, in general, the high quality of public institutions as opposed to the unacceptable quality of most commercial schools.

President Lula's policies and actions in federal universities represent a watershed yet seen in Brazil. As from 2004, the maintenance budget almost tripled, ten new universities were created, some 50 new campuses were built in the countryside and a new program has been launched to double student registration in the next five years. The program is part of a larger initiative to outcome the centennial defy of a looser basic education system, called PDE – Plan for the Development of Education, a real challenge as it depends heavily on state and municipal governments, the actual holders of a myriad of more than 5 thousands different systems spread out all states and municipalities. Yet, HE is the realm of the federal government, despite the existence of state universities, some of which are of utmost significance, such as the three state universities in São Paulo, of which USP is the oldest in Brazil.

The “World declaration on higher education for the 21st century: vision and action” approved during the WCHE organized in Paris in 1998 remains much valid, not only in Brazil, but for all LAC. The strategic value of HE as a public instrument of sustainable development demands the permanent updating of the changing roles of HE. As such, the follow-up of the Conference, due to take place in Paris in 2009 should be seen as a imperdível opportunity, as well as the regional conferences taking place in 2008. In LAC the RCHE will take place in Cartagena de Índias, Colombia in June 4-6 next year. All fora, including governmental and non-governmental organizations should devote themselves to be represented in the conference, expressing their wishes for policies that should advance the potential of education, and most especially HE.

Meanwhile, the relationship of HE to education as a whole socio-cultural process must be stressed, and therefore education is to be seen in its entirety. Ten major permanent challenges are thus proposed: (1) eradication of illiteracy, (2) access to and (3) permanence in pertinent basic education, (4) access to and (5) permanence in diversified higher education, (6) consolidation of a system of graduate studies and (7) research institutions, (8) emphasis on knowledge and (9) innovation, (10) opportunities to permanent education.

Tokyo, 29-30 august 2007.

The background features abstract, colorful swirls in shades of green, purple, and blue, interspersed with several yellow triangles of varying sizes, creating a dynamic and artistic composition.

Internationalization strategy for Japanese universities : Managing competition and collaboration

Masafumi Nagao

**Center for the Study of International Cooperation
in Education (CICE), Hiroshima University**

Changing context of higher education in Japan

– Changing high school situation

	<u>1996</u>	<u>2006</u>	<u>% chage</u>
No. of schools	5,496	5,385	– 2.0
No. of entrants (‘000)	1,479	1,157	– 21.8
No. of graduates (‘000)	1,555	1,171	– 24.7
% university entrants	39.0	49.3	+ 26.4


(MEXT statistics)

- Beginning of a shift from a sellers’ market to a buyers’ market
=> Mounting competition pressure for ‘product differentiation’

Changing context of higher education in Japan

– Impact of globalization

- (1) Increasing pressure from industries for turning out graduates with ‘international-readiness’
- (2) Increasing demand from parents and students for international exposure
- (3) Growing presence of foreign students – from East and Southeast Asia
- (4) Provision of ‘exploration grants’ by the Ministry of Education, Culture, Sports, Science and Technology

- 
- **Spread of the perception among the Japanese universities that ‘internationalization’ is inevitable.**
 - **Some universities have decided to establish and pursue a deliberate ‘internationalization strategy’ .**

For example: Hiroshima University

Internationalization strategy to manage competition and collaboration



Hiroshima University

- national ‘comprehensive’ university
- 16,000 students (incl. 5,000 graduate students/800 foreign students)
- 3,200 staff (incl. 1,850 teaching staff)
- Was established in 1949 by amalgamating several colleges
- Has ‘Pursuit of peace’ as a key guiding principle
- Aspires to be ‘A unique, world-class research university’
(Long-term vision, 2003)

Hiroshima University's Internationalization strategy

- Four pillars of internationalization

- (1) Promoting internationalized knowledge
- (2) Promoting internationalized people
- (3) Promoting international, societal contribution
- (4) Promoting an internationalized campus

- Six strategies

1. Branding
2. Universalization
3. **Networking**
4. Devolution
5. Business models
6. Infrastructure maintenance

Networking to promote collaboration

1. Pursuit of international exchange and cooperation agreements
2. Organization of International University Networks and Consortiums
3. Establishment of overseas bases
 - Beijing Research Center in Beijing Jiaotong University
 - Preparatory Office in Kenyatta University, Kenya
4. International cooperative research and education
5. Development of short-term exchange programs

Illustration 1: Development of links with African universities

Department/Unit: Center for the Study of International
Cooperation in Education

–Preparatory step: Invitation of visiting African scholars as
professors (4-month research fellowship)

Out of 26 Visiting Professors invited during FY1997–2007,
14 are from sub-Saharan Africa

–Bilateral relations: Research collaboration agreements;
(Ghana, South Africa, Malawi, Kenya, Tanzania, Uganda)

–Multilateral networking: Africa–Asia University Dialogue for
Basic Education Development Project

Illustration 2: South–Africa Japan University Forum

Department/Unit: Office of Vice President (Research)

- Foundation: Long–term collaboration with the University of Pretoria for a technical cooperation (secondary M & S teacher retraining) project in South Africa
- Support factor: Governmental partnership forum between Japan and South Africa
- Network: Forum of Vice Presidents/Deputy Vice–Chancellors of 19 Japanese universities and 16 South African universities for promoting dialogue and research collaboration
 - Hiroshima University hosted the launching meeting in May 2007 and serves as a principal coordinator on the Japanese side

Advantage of networking approach

- Key factor in an internationalization strategy is design and sustainability of efforts made in respect of individual programs and projects in alignment with the university's over-all development orientation.
- Whether or not the needed efforts are generated would depend on investment the university makes for building up its intellectual infrastructure, consisting of knowledge, skills, arts and other capabilities.
- The advantage of networking approach is that its output adds to the intellectual infrastructure by facilitating access to new knowledge, new skills and new capabilities that are available outside.



Managing competition and collaboration

By pursuing an active networking approach to internationalization, a university can share the collaborative benefits with those universities which are not so well equipped for international undertaking. The leadership role helps cope with the competition pressure both domestically and internationally.