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**Global Rankings of Universities:
Where do African Universities Stand?**

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Global Rankings of Universities

Outline of Presentation

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1. Academic Ranking of World Universities (ARWU) (1)

- Undertaken by Centre for World Class Universities of the Institute of Higher Education of **Shanghai Jiao Tong University**, China (hence often known as Shanghai Jiao Tong Ranking)
- Started in 2003 as the first global ranking of universities
- Origin was to establish global standing of Chinese top universities but soon attracted world attention
- Ranks world's 500 top universities annually
- Since 2009, ARWU published by ShanghaiRanking Consultancy, a fully independent organisation

1. Academic Ranking of World Universities (ARWU) (2)

	ARWU Indicators/Criteria	Weight
1.	No. of Alumni awarded Nobel Prizes & Fields Awards	10%
2.	Current academic staff awarded Nobel Prizes & Fields Medals	20%
3.	Highly cited researchers in 21 broad categories	20%
4.	Papers published in Nature & Science	20%
5.	Papers indexed in Science Citation Index (including Social Science)	20%
6.	Per capita academic performance (scores of 1-5 divided by number of FTE academic staff)	10%
	TOTAL	100%

1. Academic Ranking of World Universities (ARWU) (3)

2012 Rankings

- **10 top-ranked universities:**
 - 8 from **USA** (Harvard, Stanford, MIT, UC Berkley, Caltech, Princeton, Columbia & Chicago)
 - 2 from **UK** (Cambridge & Oxford)
- Best ranked **Chinese** universities:
 - Peking University (151-200)
 - Shanghai Jiao Tong University (151-200)
 - Chinese University of Hong Kong (151-200)
 - University of Hong Kong (151-200)

1. Academic Ranking of World Universities (ARWU) (4)

2012 Rankings

- Ranked universities in **developing countries**:
 - University of Sao Paulo, Brazil (101-150)
 - National Autonomous University of Mexico (151-200)
 - State University of Campinas, Brazil (201-300)
 - **University of Cape Town, South Africa (201-300)**
 - Indian Institute of Science, Bangalore, India (301-400)
 - **University of Witwatersrand, South Africa (301-400)**
 - **University of KwaZulu Natal, South Africa (401-500)**

2. THE World University Rankings (1)

- In 2004 Times Higher Education (THE) partnered with Quacquerelli Symonds (QS) to publish a new set of world university rankings.
- In 2009, THE & QS ended their partnership, each one deciding to publish its own ranking
- In 2010, THE with new data supplied by Thomson Reuters (*a business data provider headquartered in New York*) published its rankings using a different methodology
- THE uses 13 performance indicators grouped in 5 areas, most of the data being provided by the institutions
- Ranks world's 400 top universities annually

2. THE World University Rankings (2)

	THE Indicators/Criteria	Weight
1.	<u>Teaching</u> : academic reputation survey; staff/student ratios; doctoral/bachelor's degrees awarded; doctorates awarded/academic staff	30%
2.	<u>Research</u> : academic reputation survey; research income/academic staff; research output/academic staff	30%
3.	<u>Citations</u> : using publications over past 5 years in journals indexed by Thomas Reuters' Web of Science database	30%
4.	<u>International Outlook</u> : proportion of international students and faculty; proportion of journal publications having at least one international co-author	7.5%
5.	<u>Industry Income</u> : research funding attracted from industry	2.5%
	TOTAL	100%

2. THE World University Rankings (3)

2011-2012 Rankings

- **10 top-ranked universities:**
 - 8 from USA (Harvard, Stanford, MIT, UC Berkley, Caltech, Princeton, Columbia & Chicago)
 - 2 from UK (Cambridge & Oxford)

2012-2013 Rankings

- **10 top- ranked universities:**
 - 7 from USA (Caltech, Stanford, Harvard, MIT, Princeton, UC Berkeley, Chicago)
 - 3 from UK (Oxford, Cambridge, Imperial College London)

2. THE World University Rankings (4)

2011/2012 Rankings

- Ranked universities in **developing countries**:
 - University of Cape Town, South Africa (103)
 - Stellenbosch University, South Africa (251-275)
 - University of Witwatersrand, South Africa (251-275)
 - State University of Campinas, Brazil (276-300)
 - Alexandria University, Egypt (301-350)
 - Indian Institute of Technology, Bombay, India (301-350)
 - Mahidol University, Thailand (351-400)

2. THE World University Rankings (5)

2012/2013 Rankings

- Ranked universities in **developing countries**:
 - **University of Cape Town, South Africa (113)**
 - University of Sao Paulo, Brazil (158)
 - IIT Kharagpur, India (226-250)
 - **University of Witwatersrand, South Africa (226-250)**
 - IIT Bombay, India (251-275)
 - State University of Campinas, Brazil (251-275)
 - **Stellenbosch University, South Africa (251-275)**
 - University of the Andes, Columbia (351-400)
 - National Autonomous University of Mexico (351-400)
 - IIT Roorkee, India (351-400)
 - **University of KwaZulu Natal, South Africa (351-400)**

3. QS World University Rankings (1)

- QS is a global career & education company specialising in education and study abroad. It has offices around the world, including Johannesburg
- From 2004 to 2009 THE and QS jointly published the same rankings. Criteria used were research, employability, teaching & internationalisation
- From 2004-2009, the African universities ranked among the first 600 were usually UCT, Wits, Pretoria & KwaZulu Natal
- In 2010, after separating from THE, QS continued with essentially the same criteria for its annual rankings, but with some changes in the weight of the criteria
- It ranks about 700 of the world's top universities

3. QS World University Rankings (2)

	QS Indicators/Criteria	Weight
1.	Academic reputation: global online survey of academics	40%
2.	Employer reputation: global online survey of employers	10%
3.	Faculty/student ratio	20%
4.	Citations per faculty	20%
5.	International faculty ratio	5%
6.	International students ratio	5%
	TOTAL	100%

3. QS World University Rankings (3)

2012 Rankings

- **10 top-ranked universities:**
 - 6 from USA (MIT, Harvard, Yale, Chicago, Princeton, Caltech)
 - 4 from UK (Cambridge, University College London, Oxford)
- **Ranked universities in developing countries:**
 - Among the first 500, there are 44 universities from developing countries, starting from rank 139:
 - 20 from Latin America
 - 13 from Malaysia/Indonesia/Thailand/Philippines
 - 7 from India
 - 4 from Africa

3. QS World University Rankings (4)

2012 Rankings

- **Ranked African universities from 139-600:**
 - 154 University of Cape Town, South Africa
 - 363 University of Witwatersrand, South Africa
 - 392 American University of Cairo, Egypt
 - 401-500 Stellenbosch University, South Africa
 - 551-600 Al Azhar University, Egypt
- In the remaining ranked universities (up to about 700), only 2 more African universities appear:
 - 601+ Ain Shams University, Egypt
 - 601+ Alexandria University, Egypt

4. Webometrics Ranking of World Universities (1)

- Undertaken by Cybermetrics Lab of the Superior Council for Scientific Investigations (CSIC), a research body under the Ministry of Education, Spain
- Started in 2004, using publicly available web data on universities
- Ranks all HEIs that appear on the web (about 21,000)
- Six-monthly rankings published
- Rankings given by World and separately by regions (Americas, Asia/Pacific, Europe, Africa, Arab World)
- In the July 2012 rankings, **852** HEIs in Africa are ranked

4. Webometrics Ranking of World Universities (2)

	Indicator	Data	Coverage	Weight
1.	Impact	No. of external inlinks and indomains received by university's website	Current	50%
2.	Presence	No. of web pages in university's website (inc. sub-domains)	Current	20%
3.	Openness	No. of papers (pdf, doc, docx, ppt) published in dedicated websites	2007-2011	15%
4.	Excellence	No. of papers in the 10% most cited papers	2003-2010	15%
			TOTAL	100%

4. Webometrics Ranking of World Universities (3)

World Rankings

- All 10 top-ranked universities are in USA (Harvard, MIT, Stanford, UC Berkeley, Cornell, Minnesota, Pennsylvania, Wisconsin Madison, Illinois Urbana Champaign, Michigan State)
- Only 3 non-US universities appear among the top-ranked 25:
 - University of Sao Paulo (15)
 - University of Cambridge (20)
 - University of Oxford (25)

4. Webometrics Ranking of World Universities (4)

Best Ranked Universities in Africa

Africa	World	Universtiy	Country
1	336	University of Cape Town	South Africa
2	337	Stellenbosch University	South Africa
3	611	University of Pretoria	South Africa
4	671	Rhodes University	South Africa
5	773	University of KwaZulu Natal	South Africa
6	777	Witwatersrand University	South Africa
7	796	Cairo University	Egypt
8	1012	UNISA	South Africa
9	1017	University of Western Cape	South Africa
10	1109	Ain Shams University	Egypt
11	1175	Makerere University	Uganda
12	1319	Polytechnic of Namibia	Namibia
13	1394	University of Khartoum	Sudan
14	1452	University of Nairobi	Kenya

5. General Comments

- World rankings of universities are controversial but '*they are here to stay*' and are widely used & quoted by the ranked universities
- It is vital to understand the criteria used when quoting rankings of universities
- Of the 4 rankings, Webometrics is hardly ever quoted in the developed world, but often quoted in the developing world; its effectiveness is questionable
- Of the other 3 rankings, ARWU & THE are considered the most influential for research-intensive, world-class universities
- The ranked universities represent no more than 2-3% of the world's higher education institutions; the 100 best ranked represent barely 0.5%

6. Discussion

- Who benefits from global rankings of universities?
- What are the effects of global rankings on the world of higher education?
- What do we mean by a world-class university?
- Should African universities aim to become world-class and be globally ranked among the 100 best-ranked universities? If yes, why? If no, why not?
- What are the implications for an African university aiming to be ranked among the 100 world best?
- Would implementing QA help African universities to be globally ranked?



THANK YOU