

THE WORLD IS ALWAYS CHANGING, EMERGENT

- 'All things are in flux, like a river ... Everything flows'
- 'Whoever cannot seek the unforeseen, sees nothing. The known way is an impasse.'

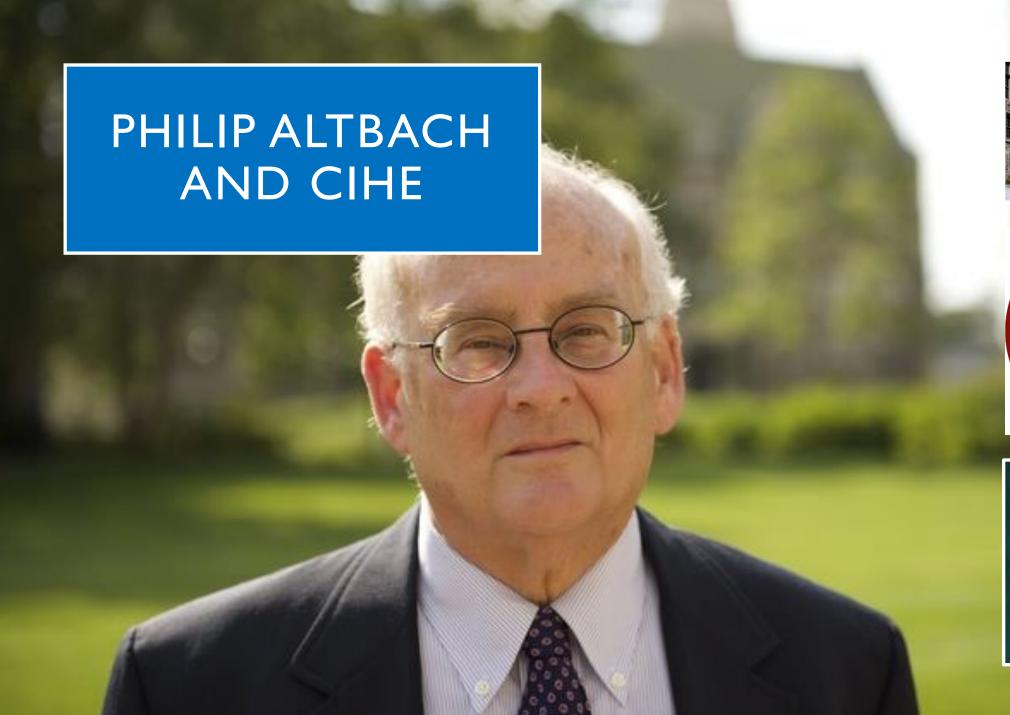
~ attributed to Heraclitus of Ephesus (544-484 BCE)





HIGHER
EDUCATION
AND ITS
DILEMMAS







CENTER FOR INTERNATIONAL HIGHER EDUCATION

BOSTON COLLEGE

Center for International Higher Education





- 'It would make sense to provide much of the money to scholars from developing areas who would likely have more understanding of their own societies' (1971, p. 554)
- 'Many educational programs are useful despite their negative aspects. Others, however, should be scrapped as they provide a minimum of concrete and needed assistance and a large measure of domination from the donor power' (1971, p. 557)

• 'It is only when an adequate understanding of modern neocolonialism in its many facets is achieved that it will be possible to change the domination of West over East to a more equitable arrangement in an increasingly interdependent world' (1971, pp. 557-558)

- 'Indigenous patterns of education remain undeveloped in almost all Third World nations...

 The colonial heritage continues to shape educational policies' (1977, p. 191)
- 'The power, prestige, and historical weight of the center holds sway over the periphery ...' (1977, p. 197)

RESEARCH UNIVERSITIES IN DEVELOPING COUNTRIES

Philip G.Altbach (2007).
Peripheries and centres:
Research universities in
developing countries. Higher
Education Management and Policy,
19 (2), pp. 1-24



 While there will always be centres and peripheries ... there is room, indeed a necessity, for a wider dissemination of research capacity throughout the world... many developing and middle-income countries can develop universities with research capacity and the ability to participate in the world knowledge system' (2007, pp. 2-3)

FRAMEWORKS USED TO EXPLAIN INEQUALITY

- I. Neocolonialism
- 2. Dependency
- 3. Centre-periphery

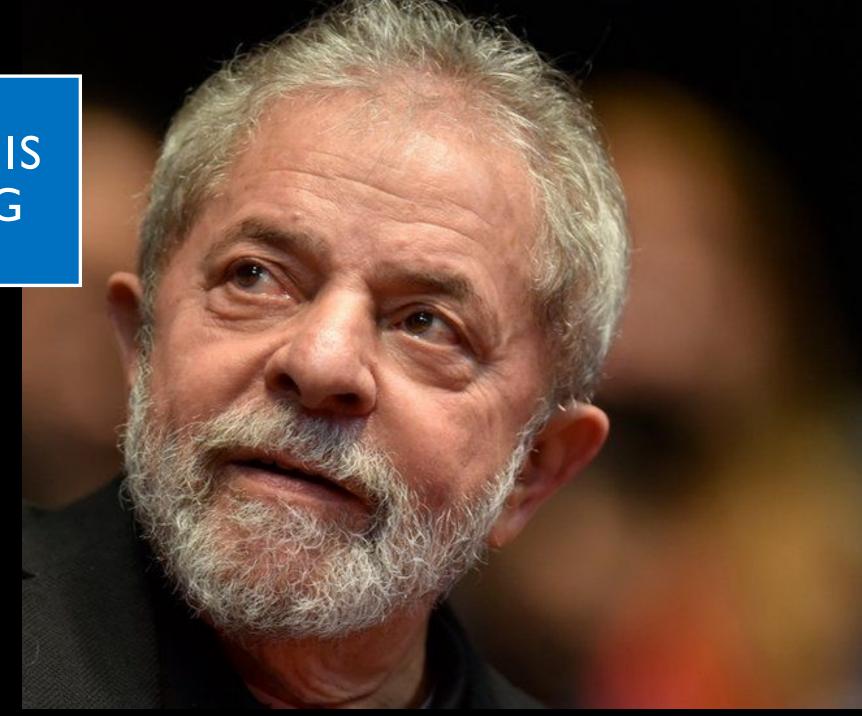


• 'Dependency ...'is "normal" in the sense that it reflects the prevailing patterns of power and wealth in the world'. Likewise, emerging nations are 'at the "periphery" of the world's educational and intellectual systems', which are controlled by the global 'centre' (1977, p. 188)





THE WORLD IS PLURALISING



GROWTH OF SCIENCE PAPERS IN SCOPUS BY COUNTRY 1996-2020

3,500,000 3,000,000 Japan India 2,500,000 Germany UK Rest of the 2,000,000 world 1,500,000 1,000,000 China 500,000 United States 2008

SPREAD OF RESEARCH TO MORE COUNTRIES 1987-2017

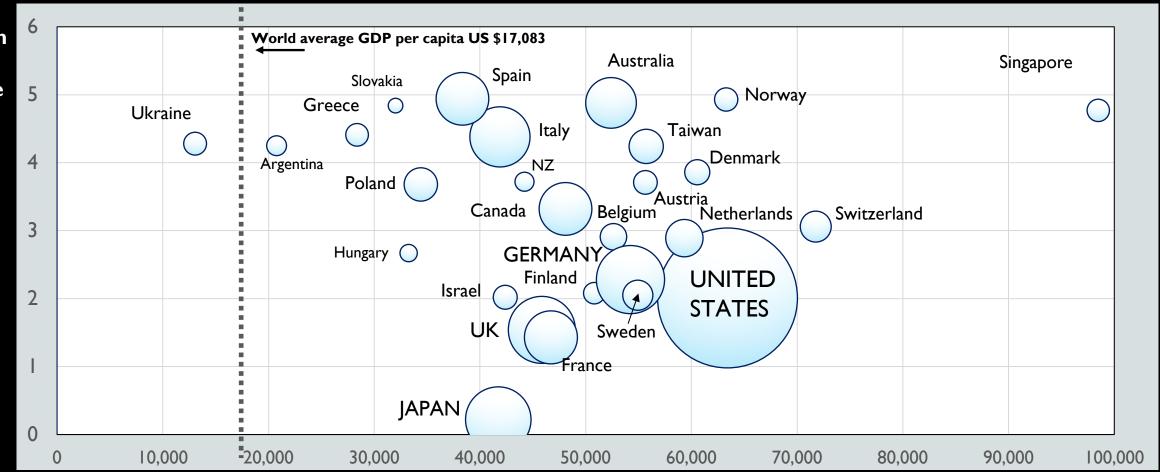
	1987	1997	2007	2017
	WoS	Scopus	Scopus	Scopus
Producing	3	4	5	6
50% of	USA, UK,	USA, Japan,	USA, China,	China,
world	Germany	Germany,	Japan,	USA, India,
science		UK	Germany,	Germany,
			UK	Japan, UK
Producing	20	23	26	32
90% of				
world				
science				

ESTABLISHED AND SLOW GROWING SCIENCE SYSTEMS IN THE PERIOD 2000-2020

NATIONAL OUTPUT OF SCIENCE PAPERS GREW SLOWER THAN THE WORLD AVERAGE RATE OF 5.15% PER YEAR BETWEEN 2000 AND 2020 - COMPARED TO WORLD AVERAGE GDP PER CAPITA PPP (US \$17,083 IN 2020)

Science systems with 5,000 papers or more in 2020. Scopus data, fractional counting (NSF 2021). Current price GDP, PPP = purchasing power parity (World Bank 2022).

Growth p.a.(%) science papers

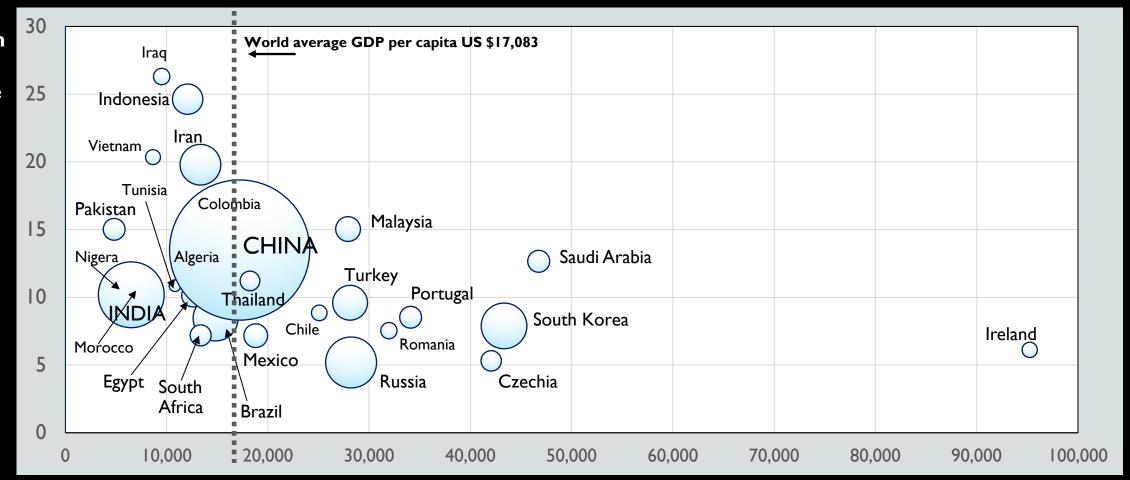


EMERGING AND FAST GROWING SCIENCE SYSTEMS IN THE PERIOD 2000-2020

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Growth p.a.(%) science papers



LEADING UNIVERSITIES IN SCIENCE PAPER OUTPUT 2017-2020

(Leiden ranking, universities with most science papers in the four year period, original data Web of Science)

university	country	total papers (fractional count)	cross-border papers (all papers)	% of all papers that were cross-border
Harvard U	USA	35,050	46,930	54.4%
Zhejiang U	CHINA	29,091	15,727	31.8%
Shanghai Jiao Tong U	CHINA	28,703	16,014	31.4%
U Toronto	CANADA	24,260	29,586	59.1%
Tsinghua U	CHINA	22,311	16,668	37.7%
Huazhong U S&T	CHINA	21,654	9,823	28.0%
Sichuan U	CHINA	21,566	7,549	23.0%
Central South U	CHINA	20,135	8,395	25.7%
Peking U	CHINA	19,874	15,329	37.3%
Sun Yat-sen U	CHINA	19,866	11,856	31.1%
U Michigan	USA	19,609	17,999	41.2%
U Sao Paulo	BRAZIL	19,552	20,237	49.0%
Xi'an Jiatong U	CHINA	19,478	9,847	30.2%
Jilin U	CHINA	19,332	6,155	21.3%
Fudan U	CHINA	18,366	10,428	30.4%
Seoul National U	SOUTH KOREA	17,981	10,552	31.7%

LEADING UNIVERSITIES IN HIGH CITATION SCIENCE 2017-2020

(Leiden ranking, universities with most top 5% papers by citation rate, original data from Web of Science)

university	country	top 5% papers (fractional)	total papers (fractional)	% of papers in top 5%	% of papers in top 1%
Harvard U	USA	4276	35,050	12.2%	3.1%
Stanford U	USA	2140	17,187	12.5%	3.2%
U Toronto	CANADA	1773	24,260	7.3%	1.5%
Tsinghua U	CHINA	1726	22,311	7.7%	1.7%
U Oxford	UK	1722	16,499	10.4%	2.5%
Zhejiang U	CHINA	1640	29,091	5.6%	1.0%
U Michigan	USA	1508	19,609	7.7%	1.7%
MIT	USA	1501	10,503	14.3%	3.9%
U College London	UK	1446	15,560	9.3%	2.2%
U Cambridge	UK	1425	14,268	10.0%	2.5%
Shanghai Jiao Tong U	CHINA	1405	28,703	4.9%	0.8%
Johns Hopkins U	USA	1404	17,708	7.9%	1.8%
Huazhong U S&T	CHINA	1311	21,654	6.1%	1.0%
U Pennsylvania	USA	1290	14,100	9.1%	2.2%
U Washington, Seattle	USA	1267	14,847	8.5%	1.9%
Columbia U	USA	1249	12,891	9.7%	2.3%

NORMATIVE IMPLICATIONS

DECOUPLING WITH CHINA?

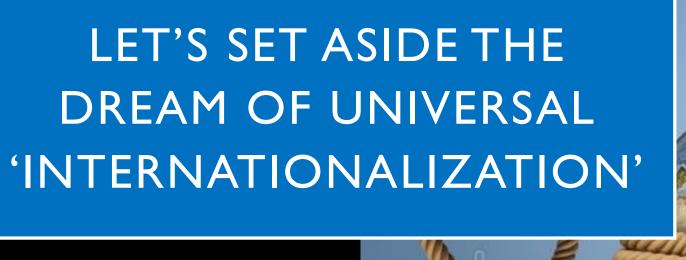
we don't have to do it in higher education

WRAY CK WA BAC G



- 'China can be understood only in terms of the institutions and ideas which have been worked out in its own historical evolution' (John Dewey)
- Chinese politics 'has to be understood in terms of itself', not translated into an 'alien' political classification

[~] cited in Jessica Ching-Sze Wang (2007). John Dewey in China: To teach and to learn. State University of New York Press, Albany, p. 76





- 'Within the contemporary context of Western dominance, internationalisation of higher education in non-Western societies necessarily touches on longstanding knotty issues and tensions between Westernisation and indigenisation' (Rui Yang, 2014, p. 153)
- 'Benevolent intentionality in internationalisation' is 'a continuation of the neo-colonial project'. Global rankings 'have pushed the internationalisation pendulum from intention to coercion' (Damtew Teferra, 2019)



• 'Just as colonization is an ongoing practice rather than a singular event, so is decolonization... a compass that continuously reorients us away from reproducing further harm and toward enacting redress and repair for harms already done... toward more generative possible futures that are collaboratively woven'

[~] Sharon Stein (2022). *Unsettling the university: Confronting the colonial* foundations of US higher education, Johns Hopkins University Press, Baltimore, p. 41