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The globalization of higher education: Is it neo-imperialism run amok, or the hope of the world?

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[The globalization of higher education]

Good morning in Cambridge! It is afternoon in Oxford. It is good to be with you and I warmly thank my colleague Manja for arranging for this conversation. The bottom of the slide shows the five sub-heads of the presentation. I will speak for about 30 minutes, present a good deal of data, and then we will have discussion.

[Globalization]

My topic is the globalization of higher education. I want to begin by theorizing it and locating it historically. Defining terms is important, as you know. By 'globalization' I simply mean 'processes of *convergence* and *integration* in the planetary scale, that is, at the level of the world as a whole or large world regions. There are many aspects to this and it can feed into one or another geo-political project. I'll get to the political content later.

[1. Proto-globalizations]

The global integration of higher education and knowledge, are more advanced than the globalization of finance and economic production, or politics, which remains almost entirely national except in Europe. While higher education is still shaped by nation-states much of its activity is globalized, especially that which relates to knowledge. The global transformation of higher education and knowledge, which is difficult to grasp because we are in the middle of it, is the latest in a succession of waves of worldwide cultural change since the end of the Ice Ages. Let's look at the past to gain a sense of the magnitude of what's happening now.

[Worldwide radiation of agriculture in the Holocene from c. 10,000 BCE onwards]

The first and most important change was the emergence of agriculture in different parts of the world and its radiation everywhere else, enabling a vast expansion in food supply and population, social surplus and steeper hierarchies, and beginning to remake the ecology.

[Urbanization from c.10,000 BCE onwards]

No one is very sure of what came first, systematic agriculture or living in villages. The second great transformation is the growth and spread of cities, a slow burn for most of history but tremendously stimulated by industrialisation and electrification and on track to reach 75% of world population by 2100. Cities enable more complex social organisation with an intricate division of labour, concentrated resources, states and large-scale communications. They have changed how we think and how we relate.

[The radiation of printing East and West after the pre-Song dynasty innovation in the 9th century CE]

The development of block printing in pre-Song China, moveable type in 14th century Korea and printing in 15th century Europe helped to expand literacy, institutionalise public communications and common linguistic cultures, and facilitated governance, economic markets, civil society based on newspapers and letters, and the massification of education. Not to mention comic books, game tickets, university diplomas and other vital spin-offs.

[Euro-American conquest capitalism after 1492]

15th and 16th century European sea-voyages powerfully quickened global vision, the sense of the world as a whole. But the world beyond home and nation was ‘othered’, understood not as a common home in which to live and learn, but a place of endless resources, ripe for exploitation at the point of a gun. The European world project was grounded in a deep sense of unself-questioning cultural superiority. The global became the colonial and exceptionally violent and brutal. Europeans and North Americans used their geographic knowledge to intervene politically across the whole world through direct conquest or sustained intervention. Only five countries did not come under Euro-American control. The hyper-exploitative ‘we are superior because we have more guns’ vision of the global persists, as you know, but fortunately it is not the only kind of global practice.

[Fossil fuels and later, electrification enable rapid movement through physical space]

The 19th century saw another revolution in transport, this time joined by communications. The emergence of rapid forms of human transport, powered by fossil fuels, and cheaper massified travel, including oceanic travel, bringing a heightened imagining of the world and new freedoms of mobility to ever widening circles of people. It also saw a great leap forward in asynchronous communications through postal services, synchronous messaging through the telegraph – a huge breakthrough - and then synchronous speech through telecommunications.

[Rapid evolution of the global communicative space after the beginning of the internet in 1989]

From the 1980s onwards there was a second wave of innovation in communications and it was joined to the revolution in information which fundamentally reshaped the nature and practice of knowledge, so transforming higher education. Higher education was deeply engaged in the ICT revolution from the start. In 1990 there were just 2.6 million users of the Internet, but many were in universities in the United States, so the early evolution of the Internet, and the formation of the networked world science system, were shaped by American faculty norms – open relations of a civil society kind, free of direct state regulation. The cultural equivalent of what was happening in the free trade world economy. This facilitated the globalization of science and universities. By January 2021, states the World Bank, there were 4.7 billion Internet users, 59.5 per cent of global population. This has made material, practical, the idea of one world society, though there are immense inequalities, barriers, not just the giant inclusion, massive exclusions and closures as well. But it has made the global higher education space as real as national, regional or local.

[2. World making]

In the succession of transformations I’ve described, the sense of the world as a whole has advanced and the global scale of action has evolved. ‘Scale’ is theorised in geography. Geo-cognitive scales such as ‘the global’ (or for that matter ‘the national’) were not

always-already there. There is a material element, yes, there is a planet that constitutes the global. But the global scale is continually brought into being by social agents – by which I simply mean persons and institutions - who co-create that scale as conditions of possibility.

[three way flow diagram]

In sum, in making the global scale in higher education are three intersecting elements:

- material (e.g. climate, resources, technologies)
- imaginings and interpretations
- social practices (for example in higher education, university models, global science, cross-border mobility, online programs, university partnerships, rankings)

But it must be emphasised that agentic capability in world making is unequal! You know this. And practices in the global scale can be of many different kinds. They can be imperial and exploitative, as in guns and bible imperialism, or reciprocal and respectful of the other.

[“Space is the sphere of the possibility of the existence of plurality, of the co-existence of difference”]

One more point about the global scale. As that great geographer of globalization, the late Doreen Massey reminds us, once a geo-cognitive scale of social action is made real, then no one can fully predict its development or control its content. Others move into that space and act as they will. You know this in relation to the Internet. Expect the unexpected. It is the same in global higher education. It is ontologically open. Diversity and contingency will flourish. It won't stay the same and many new players and new powers will emerge.

[Higher education and knowledge are practised in a *multi-scalar* setting]

The outcome of all these developments is that higher education today is *multi-scalar*. Higher education agents are simultaneously active in global, national, and local scales (higher education is 'glonacal'). Other scales like pan-national regions (e.g. EU), sub-national states and cities also matter. The local scale includes both the institution and the discipline or professional group. It's complex and it varies. Research and knowledge tend to be more global than teaching and learning.

Two more theoretical points. First, the scales are different to each other. They are not contained inside each other at successively diminishing size, like the Russian dolls, *матрёшка* [Matryoshka]. They have differing rules, dynamics, activities and mentalities. For example, the national scale is normed by nation-states. National higher education is framed by laws and funding. In the US the higher education market is structured by federal policy on student loans and the allocation of research grants. In contrast, in the global scale there is no state. Agents operate with a good deal of freedom beyond national boundaries. Take science. In the global scale there is a pool of scientific papers and networked collaboration but no normative centre. Global science is regulated informally by the interactions and protocols of professional scientists. Science is primarily organised and funded at national level yet practised globally. Many global scientists are leaders in national scientific communities, and local institutions, yet their primary loyalty is to the global discipline.

Second, though the global scale has become more important, no one scale is necessarily dominant. To understand global higher education, refuse the instinct to privilege one scale.

The most common error is “methodological nationalism” – the belief that the nation is the natural and only essential form of human society, that the world is a bit player on the borders of the nation. It is not. There is also “methodological globalism” – the belief that the global is always dominant and determining. It’s not.

[3. Globalization of higher education since 1990]

Let’s move now to the heart of the talk – the globalization of higher education, what it is and what it means and where it is going. Globalization has enlarged higher education as a ‘space of possibles’, as Pierre Bourdieu would describe it. Since 1990 there has been remarkable openness, dynamism and innovation in the global scale, as well as hierarchy, capture and closure. These are the areas I will cover.

[Global higher education is constructed in three kinds of spatial-social practice]

Global higher education is constructed in three kinds of spatial-social practice. There are *cross-border connections*, e.g. student and faculty mobility, research partnerships, university agreements. These start to become transformative when they become regular and grow in quantity. There is *global diffusion* of policies, practices, ideas and models, such as the worldwide spread of the model of the comprehensive science-oriented “multiversity”. Then there is the most globally potent practice, that of *global systems*, based in world-spanning linkages and relationships, such as the global bibliometric knowledge pool and global science networks, academic communications, global comparisons and rankings. We’ll now look at some practical examples of each of these kinds of practice.

[Spread of high participation higher education 1971-2019]

First, global diffusion. Take the worldwide spread of aspirations for higher education, and the expansion of educational infrastructures to accommodate this. From the mid 1990s onwards, across the world, tertiary education enrolments began to grow at a faster rate than GDP and a much faster rate than population. The United States, the first high participation country, has now been joined by more than 75 other countries which enrol over half of the school leaver age group in higher education. Higher education has been catapulted into a much larger social role. Knowledge is more widely diffused. Workforces are being prepared at a more advanced level. In future at least one in five of all workers will hold degrees, three in every five workers in Euro-America and East Asia. Participation lags in South Asia and Sub-Saharan Africa but is growing rapidly in these regions also.

[Mobile students grew 5.5% per annum between 1998-2019]

Second, one of the most important kinds of global connection – student mobility. Until the pandemic there was rapid growth of student and faculty mobility, and I suspect that the appetite for educational travel has not diminished. In addition, faculty mobility and cross-border institutional collaboration has grown exponentially since 1990. Only adversarial geo-politics seems capable of retarding that trend, and only in selected places. Cross-border online education is also advancing continually, further stimulated by the pandemic, and in most countries without displacing face-to-face national education as some predicted.

[Number of science papers in Scopus, by type of collaboration, world]

Third, global systems. The most spectacular development has been the formation and rapid expansion of the networked global science system. Published global science has grown at

5.15% a year since 2000. The pool of global science has tripled in one generation. In most science-based fields, though not the social sciences and humanities, global science epistemically dominates national science. Science grows in a collaborative process in which the dynamic global system stimulate national investment and activity and new researchers and countries can enter freely and collaborate with each other. The network is signified by joint publishing. One quarter of global science papers have international co-authors.

[Internationally collaborative papers: 2016-2019]

The collaborative science system is led and dominated by the layer of leading research universities. They staff the journals. They command the author lists. They have the most funding for doctoral scholarships and postdoc posts and so draw emerging talent from across the world. It is their 'regime of truth', in Foucault's words. They define the epistemic map, often lead topic development, and entrench English as the one language of use. Nice if English is your first language. Unfortunately, that's not true for 95% of global population.

[4. Relations of power in global higher education]

That brings us the question of relations of power in global higher education and knowledge. Not how the global scale could be, in theory, but how it is right now. These are the areas I will cover: the global university hierarchy, with your university and mine sitting at the top of the Himalayan chain – or so it says in all the global rankings. What's included and what's excluded from the global knowledge pool. The economic and racial aspects of hegemonic global power in higher education. And also, some signs that the hierarchy is loosening up.

[Use of Science bibliometrics in global rankings firmly stratifies higher education on the basis of research performance]

Let's look first at global university rankings. These stratify higher education institutions and national systems worldwide, using an apparently credible method (full of hidden flaws), primarily on the basis of research performance and associated university reputation. You might say 'so what'. Rankings don't matter at Harvard, and global rankings don't matter in the US, only the US News and World Report matters (though that's the most flawed ranking of all). But global rankings are influential worldwide. They play into decisions about which faculty to hire, student and faculty decisions about mobility, funding decisions by corporations and foundations, government evaluation of performance, and in several countries now feed into national policies about which skilled immigrants to accept. They also create a hierarchy very visible and easily understood, and one which exaggerates the apparent vertical distinctions between institutions – though the precise order is ordered by the methodologies of the rankers. What power they have taken into themselves.

The visible vertical order plays into the imagining of global higher education as a competitive market. The measure of value that underpins market calibration is research output and citations. Unlike the case with US News and World Report, research performance determines global rankings. Though in formal terms it is only 20% of the QS ranking it heavily influences the 40% of the ranking based on reputational surveys. Likewise, directly and indirectly research is more than two thirds of the Times Higher ranking.

[University rankings normalise the "Cambridge model" and entrench a worldwide process of imitation (and also foster higher investment in science)]

These rankings have powerfully normalised as exemplar institutions the universities that are strongest on the basis of research performance thus defined and measured. We can call this the Cambridge effect. In the most credible ranking, Shanghai ARWU, Harvard is always number 1, not because of its reputation, where it would be number 1, but because of the research output of Harvard Medical school, which *by itself* generates more high citation science than the total at Stanford which is world number 2. Cambridge UK is second in the Shanghai ranking because its researchers have received the largest number of Nobel Prizes.

[Global stratification of higher education]

Ranking has touched of a structured and professionalised process of imitation, as universities all over the world strategise to lift their ranking position. To do so they must magnify their research outputs in the two major clusters that above all shape their ranking, medical and life sciences, and physical sciences and engineering. Increasingly, other domains are of lesser priority in institutional development. Global rankings directly structure national funding and local incentives and patterns of activity, in many countries.

[Stitching it up for global English]

This kind of globalisation is neo-imperial in character, and in continuity with the colonial era. Rankings and dominant models reproduce the inherited hierarchy in material ways, maintaining unequal flows of resources and concentrations of talent. This configuration of global higher education imposes the primacy of Anglo-American language, culture and science and stigmatise and exclude everything different. The recognised pool of global science by no means contains all global knowledge, far from it. English is the first language (L1) of 5% of world population and the L2 of 10%. Yet 98% of papers in web of science and 96% in Scopus are in English. These papers are seen as “universal knowledge”, while other knowledge is merely “local”, or worthless superstition, as under colonialism. Note that all indigenous knowledge is excluded from global recognition and circulation. The potential for cosmopolitan higher education, opened by communicative globalisation, is partly lost.

['Whiteness as futurity': Why are the USA and UK so attractive to international students and families?]

Globalisation in higher education and knowledge has been colonised by an imperial hierarchy through more than just research recognition and calibration. It also reproduces a racialised hierarchy, grounded in White Supremacy, as Riyad Shahjahan and Kirsten Edwards have stated, elevating white persons, countries and institutions, and trapping other families and students in status aspirations they cannot fully achieve. The Shahjahan and Edwards paper, which is strongly recommended, convincingly explains why not just the United Kingdom but the UK enjoy a dominant position as magnets for international student flows.

[But in the last two decades capacity in higher education and research has developed rapidly in middle income and some lower income countries]

Now, let's make the picture more complicated. The imperial countries don't rule the roost as much as they used to. In the longer term, perhaps the standout feature of the more global era has been the rapid growth of state building, educational participation and science systems in most middle income countries and some low income countries, and rise of new higher education and science powers outside the Euro-American bloc, the 'Western' countries. This is new. Let's look at some data that illustrates the point.

[Slower growing Science systems in the period 2000-2020]

I'm going to show two figures on the size and growth of national science systems, using global science papers as the measure. First, the countries where between 2000 and 2020 the output of science papers grew more slowly than the world average rate, which was 5.15% per year. These are mostly countries with longer established research sectors. The graph includes an income measure, world average GDP per capita PPP (US \$17,083 in 2020). You can see that most of these slower growing systems are above average in income.

[Fast growing Science systems in the period 2000-2020]

Now let's look at the fast growing systems. These are mostly the new kids on the block, that show that global power in science is becoming more plural. Look at the national income line again. Ten of these countries are below world average GDP per head and China, which has passed the US to become the world's largest producer of global science, is just above world average income. India, now the third largest science producer, ahead of Germany, Japan and UK, is well below the world average income. Brazil and Iran have large science systems.

[Top universities in STEM research, Leiden ranking]

The top Chinese universities are now on par with the top US universities in producing high citation science, in the cluster of disciplines we can call 'physical sciences STEM'. This includes mathematics, statistics, complex computing, physics, astronomy, chemistry, materials and all branches of engineering. As the Table shows, China has eight of the nine leading universities in top 5% papers in maths and computing. Tsinghua University has passed MIT in top 5% *and top 1% papers* in the physical sciences STEM cluster. However, the Chinese universities are not nearly as strong in medicine and life sciences.

[Growing impact of populism and geo-politics]

China's equal parity with the US in physical sciences and associated technology helps to explain the sudden change in US policy on scientific cooperation. There has been a massive shift, from close and fruitful engagement, built on normal faculty collaboration and trust, to a more hostile regime in which all China links are suspect. This is one of the ways that geo-politics and political populism, the unilateral assertion of national agendas, securitization and militarization is affecting the global higher education space. There's also Brexit, fragmenting research cooperation between the UK and the rest of Europe, opposition to international students in some countries, possible decline in China's students going abroad, the closing of international universities in Hungary and Russia, and now Russia's unilateral exit from international cooperation following its invasion of Ukraine. With academic freedom under pressure in many countries, internationalization is also under pressure.

[Global convergence *and* multi-polarity]

We are entering an unprecedented period. The US remains strong and sees itself as de facto global governor. That works in the Euro-American world but not elsewhere. There are too many strong non-Western powers in the mix, especially but not only China. So we have both advanced global convergence, and diversity and difference. The US and the Western world remain more dominant in higher education, and especially in knowledge, than in the world

as a whole, but that will change. The political economy is now more plural. Cultural power will pluralise too and that will affect higher education. It is only a matter of time.

[5. final thoughts]

So, to conclusions. Thank you for staying the course. I have three final thoughts.

[Conflicting ways of explaining “the global” in higher education]

First, it is essential to keep an open mind. Many people judge globalization in teleological terms. They fit it into one pre-given narrative or another. They see globalization as necessarily positive, diversifying, enriching, flat, democratising, even the hope of the world. Or as necessarily imperial, colonial, racialised, capitalised, another expression of an overwhelming structural power that extinguishes all agency and hope. In reality, it is both. Present global higher education and knowledge are restricted by neo-liberal and neo-imperial models and practices, very much so. Yet the global communicative space is a global common good, the worldwide sector is pluralising, and the potentials are always open.

[Either way the possibilities are open – and global higher education and knowledge will change greatly]

What is absolutely clear is that present arrangements won't continue. Global higher education and knowledge will change greatly, for good or for ill, just as they have changed dramatically since 1990. And in this sector there is always much scope for agency, institutional and individual, not just agency from above but agency from below.

[What will be the future relation between national and global higher education?]

Finally, a personal comment. The Westphalian sovereign nation-state enshrined in the UN charter cannot effectively address global problems. For example, in relation to global climate change, every national political system is vulnerable to the power of fossil fuels and the associated sectors. A coordinated response from all major nations is impossible. Hence it is vital to strengthen cooperation in the global scale. Science does this. Universities, putting their global cooperation on priority, could also do it. So there are two ways to move forward. One is to build global activity more strongly vis a vis national action. The other is the small matter of ensuring that global action in higher education and knowledge is not imperial, not premised on self-interest and exploitation, but respectful of the other, inclusive of diversity, and focused on the good of the world as a whole. I am not optimistic that could happen in the economy or in government. It could happen in higher education.

Thank you for listening and I'm looking forward to discussion.