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A fast changing setting East and West: Implications for higher education and research

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A fast changing setting East and West: Implications for higher education and research

COVERAGE OF TOPIC

- 1. Three challenging questions**
- 2. Globalization, development, higher education and science**
- 3. Globalization in East diverges from globalization in West**
- 4. The New Silk Road: implications for higher education and research cooperation**
- 5. What methods do we use to understand the global setting?**



1. Three challenging questions

1. Given global integration, what is the interplay between the processes driving change simultaneously in the East and the West ? How does all this play out in higher education?
2. What can higher education do to advance the principles of open movement, exchange and intellectual and cultural freedom and to broaden the collaborative highway between universities East and West?
3. What particular role will the New Silk Road play in this respect? What will be the meaning and impact of the flows and collaborations occurring between China and Europe, and what will be the conditions and values defining them?



2. Globalization, development, higher education and science

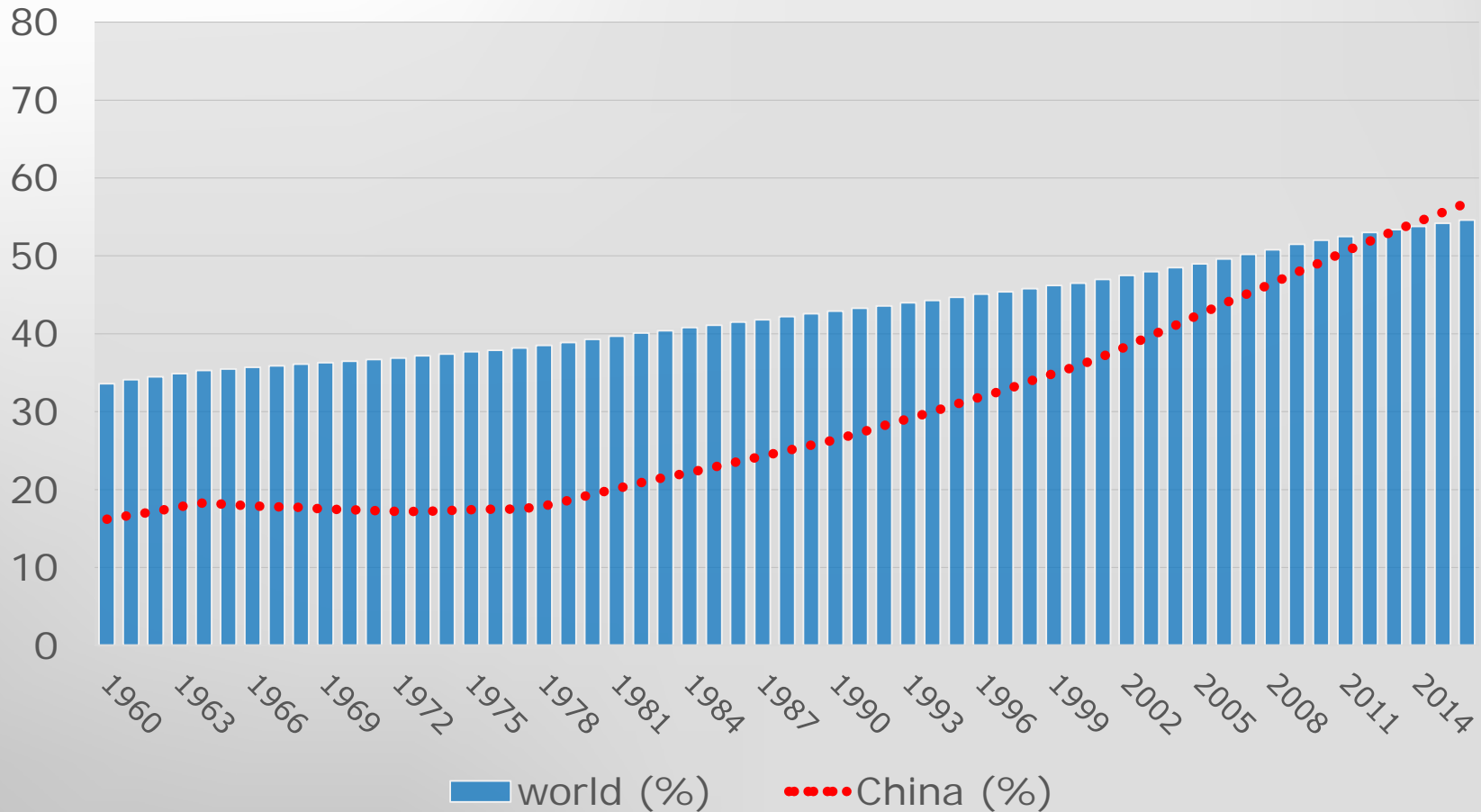
- **the world a convergent relational environment**
- **globalization uneven by sector, and country**
- **limited in the sphere of politics, no global state**
- **unstable multi-lateral relations**
- **national politics modulate global integration**
- **political economy of globalization more nationally variant, than is globalization of science**



Global era dynamics

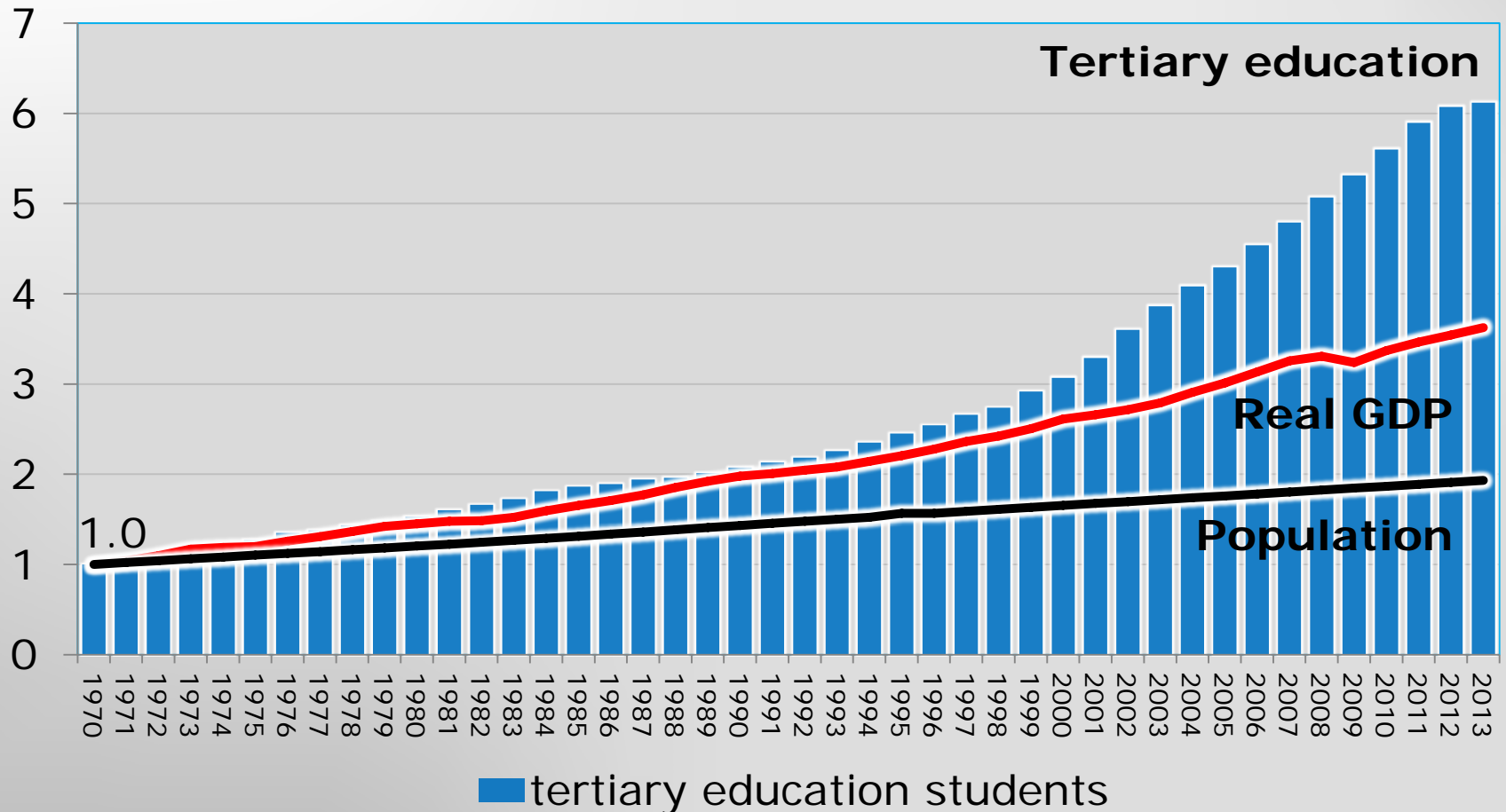
- **globalization fosters and favours global cities, which get stronger over time at national and global level**
- **economic globalization is equalizing on world scale (rise of China and other countries, reduction in absolute poverty), but unequalizing inside countries**
- **surge of development and urbanization in emerging countries, e.g. China, Indonesia, India, Latin America**
- **growth of global middle class, in emerging nations**
- **surging demand for tertiary/higher education from mid 1990s on**
- **growth of research and worldwide spread of science systems**

Urban share (%) of world population 1960-2016: World Bank data

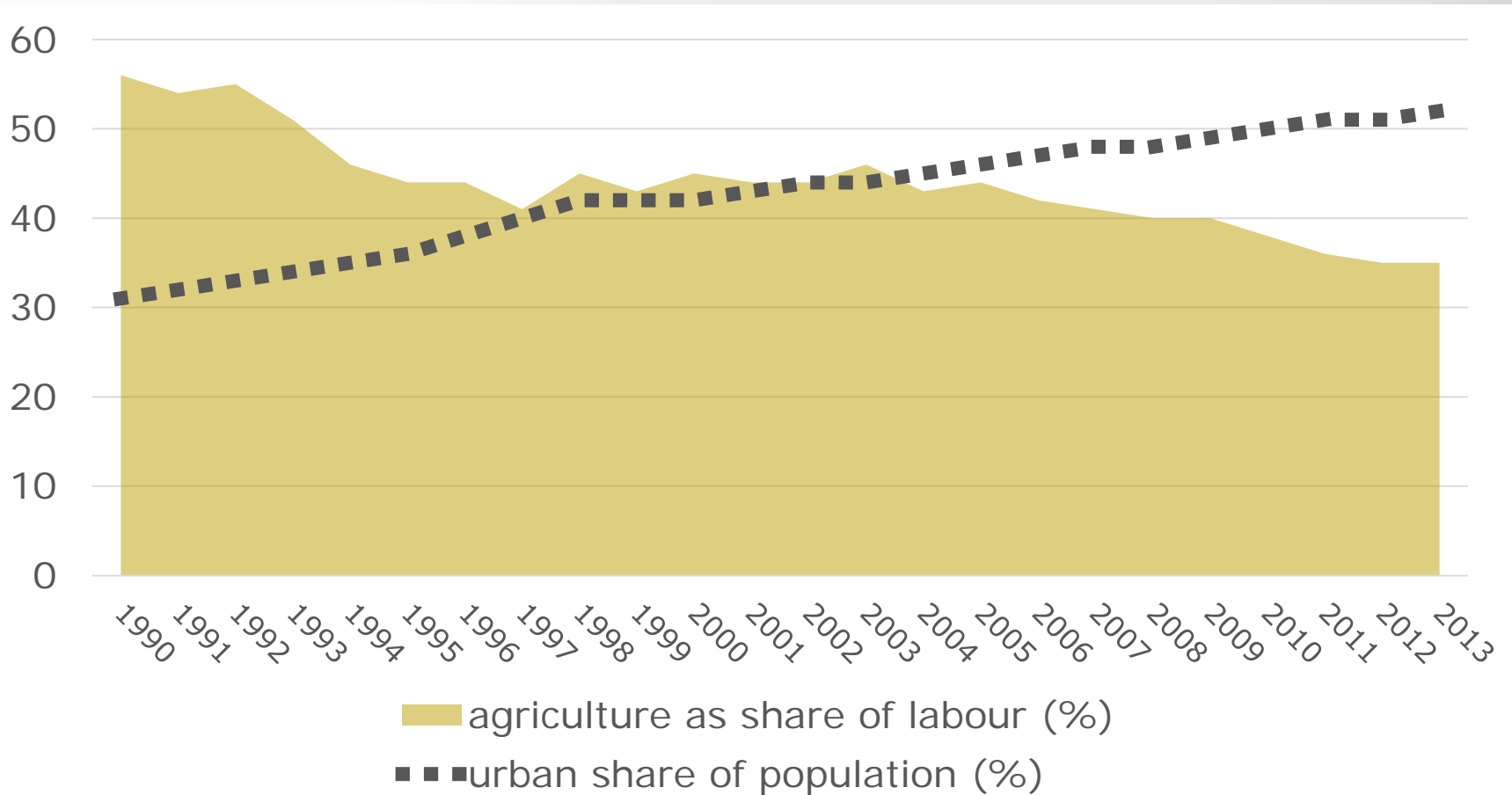


World GDP, population and tertiary enrolment, 1970-2012 (1970 = 1.0)

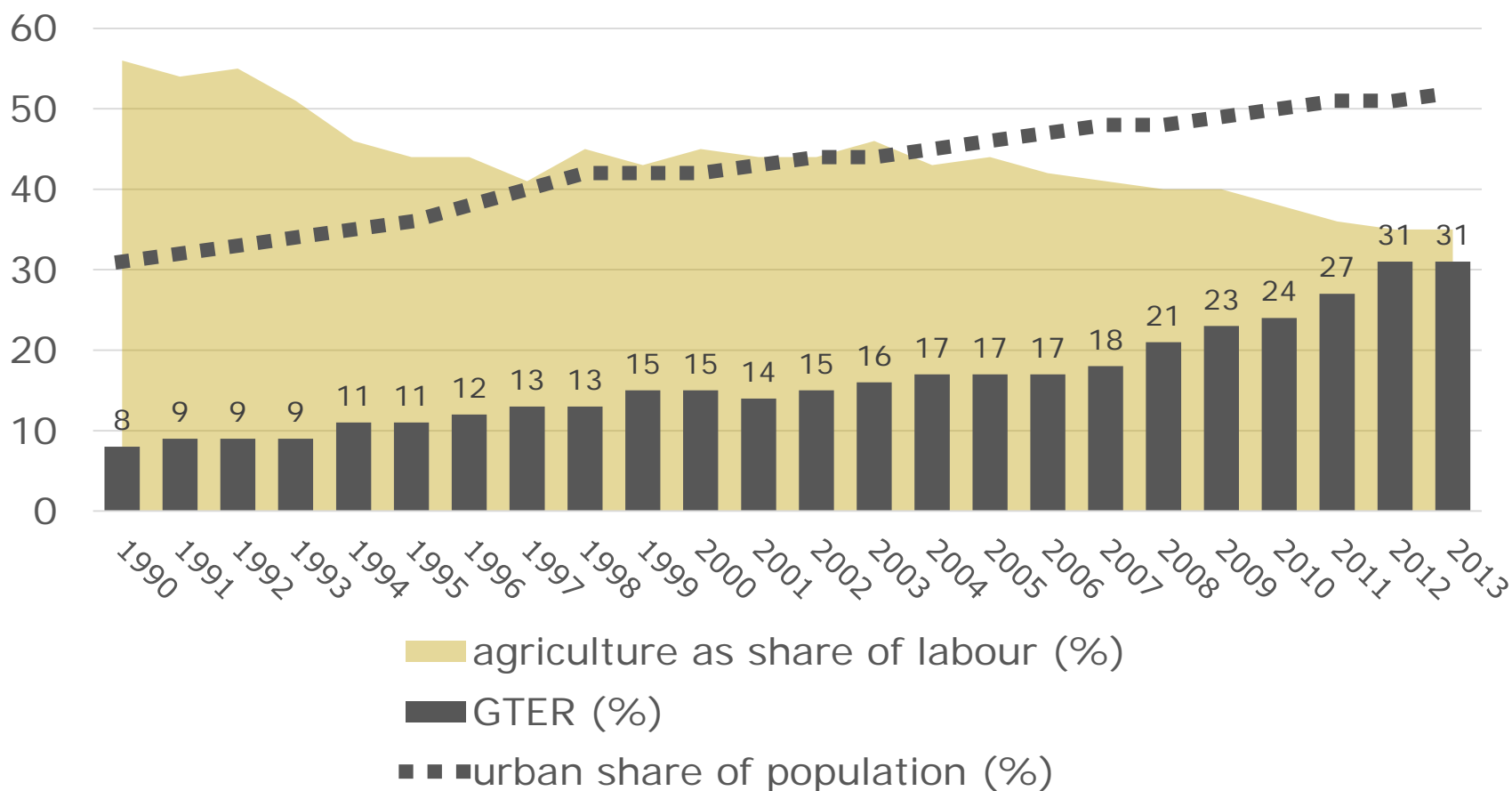
1970 = 1.0. Constant price GDP. Data from World Bank, UNESCO Institute of Statistics



Gross Tertiary Enrolment Ratio (%) and urbanization in Indonesia 1990-2013 (1)



Gross Tertiary Enrolment Ratio (%) and urbanization in Indonesia 1990-2013 (2)





Regional Gross Tertiary Enrolment Ratios (%), 1970, 1990, 2010 and 2014

	1970	1990	2010	2014
World	10.0	13.6	29.3	34.5
North America/ W. Europe	30.6	48.6	76.9	76.4
Central and Eastern Europe	30.2	33.9	67.9	74.4
Latin America and Caribbean	6.9	16.9	40.9	44.7
East Asia and Pacific	2.9	7.3	27.3	39.1
Arab States	6.0	11.4	25.5	28.9
Central Asia	n.a.	25.3	26.7	25.7
South and West Asia	4.2	5.7	17.4	22.8
Sub-Saharan Africa	0.9	3.0	7.7	8.2



Research finds that people who achieve tertiary education, on average ...

- Have a larger range of employment options
- Are more likely to be in good health, as are their families
- Have more advanced skill in the use of information and communications technology (electronic agency)
- Are more geographically mobile, independent of income level (= greater personal confidence and agency freedom)
- Report higher levels of inter-personal trust (also = greater agency)
- Are more likely to state that they have a say in government (also = greater personal agency)
- Are more positive about migration and cultural diversity, and more internationally competent



Globalization in higher education and research

- higher education is shaped by larger global trends (e.g. partial global integration, growing inequality within countries)
- Surge in migration and cheaper transport magnify demand for international education, commercialization drives supply
- globalization is largely win-win in higher education and science (BUT English as one global language is exclusive)
- global science system dominant vis a vis national systems
- World-Class Universities collaborate, more globalized than nations
- WCUs produce global common goods
- WCUs compete for global prestige, and are expected to advance the global interest of their nations

Science spreads: science universities grow in output, in number and in the number of countries that have them

Number of WCUs with over 10,000, 5000 and 1200 papers in Web of Science, 2006/09 to 2012/15 (Leiden University data)

Number of universities that published more than	2006 to 2009	2007 to 2010	2008 to 2011	2009 to 2012	2010 to 2013	2011 to 2014	2012 to 2015
10,000 papers	25	26	31	34	39	46	50
5000 papers	122	128	135	143	154	171	190
1200 papers	594	629	657	682	712	743	780



World's 15 largest research universities

university	system	Papers 2012-15
Harvard U	UNITED STATES	31,678
U Toronto	CANADA	21,737
Zhejiang U	CHINA	19,061
U Michigan	UNITED STATES	18,270
Shanghai Jiao Tong U	CHINA	18,245
Johns Hopkins	UNITED STATES	16,368
U Sao Paulo	BRAZIL	15,314
Stanford U	UNITED STATES	15,113
Seoul National U	SOUTH KOREA	15,004
U Tokyo	JAPAN	14,943
Tsinghua U	CHINA	14,930
U Washington - Seattle	UNITED STATES	14,163
U Oxford	UNITED KINGDOM	13,981
U California Los Angeles	UNITED STATES	13,898
Peking U	CHINA	13,779



3. Globalization in East diverges from globalization in West

- **China powered by four decades of high economic growth**
- **major growth in inequality in China (especially wealth), regional unevenness, but**
- **great increase in average incomes, opportunities, size of middle class**
- **surge of science in China, Singapore, Korea, Taiwan**
- **mature' economies of Western Europe and UK have slow economic growth and hard hit by 2008 recession**
- **major growth in inequality, static growth of middle classes, geographical inequalities, declining incomes of bottom 50% (and especially incomes of bottom 20%) in USA**



Economic and cultural globalization are dynamic and changing

- 1990s globalization: 'openness' in economy and culture
- American leadership = political and ideological coherence
- Since 1990s continuing globalization in communications, data transfer, culture, and knowledge (science)
- Open trade regime, offshoring, global supply chains and foreign investment booms till mid 2000s but then slows
- now flat trade in goods, surge in commercial data transfer
- Faltering 'edge' of Western multinationals, except tech sector
- The old champions of globalization have new doubts:
Resistance to open trade in US, to economic migration in UK
- Rise of nation-bound nationalism ('closed nationalism')
- Davos, APEC 2017: China champions economic globalization

Momentum of economic globalization slows after 2008 recession in West

Rising no more

Share of exports that participate in cross-border supply chains, %



Sources: IMF; UNCTAD

Total flows of foreign direct investment
As % of global GDP





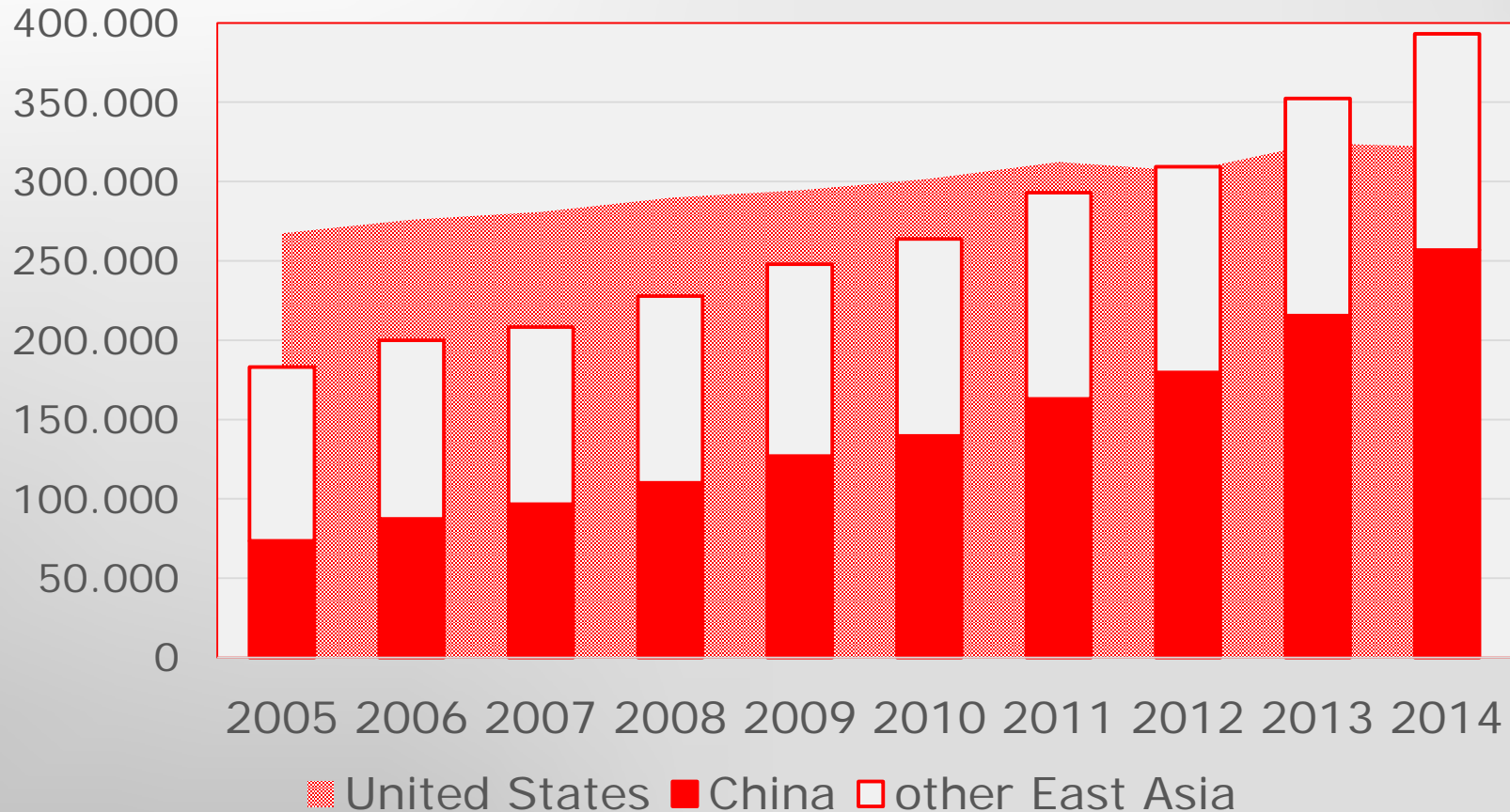
Income inequalities data also diverge

Alvaredo, Chancel, Piketty, Saez and Zucman (Dec 2016)

- **top 1% in China have 13% of all income (20% in US) in 2015, the top 1% in China had less than 6% in 1978**
- **bottom 50% in China have 15% of all income (12% in US), top 50% in China had 27% in 1978**
- **between 1978 and 2015, top 1% in China had 2491% increase in income. Bottom 50% did less well but still increased income by 550%**
- **between 1978 and 2015, top 1% in USA had 198% increase in income. Bottom 50% saw 1% *decline* in income, larger decline in bottom groups**
- **massive rise in wealth inequality in China due to unequal access to privatized assets (public wealth as share of total wealth dropped from 70% to 35%)**

Science output 2005-2014: High growth in China and East Asia, slower in US

Web of Science/UNESCO data. Number of papers, including reviews and notes.
Other East Asia = Japan, Korea, Singapore, Vietnam





Shanghai ARWU top 500 universities Chinese systems 2005 and 2017

	2005	2017
China mainland	8	45
Hong Kong SAR	5	5
Taiwan China	3	7
Singapore	2	2
Total	18	59

Growth in number of top 10% papers, leading East Asian universities, 2006-09 to 2012-15

university	system	2006-2009	2012-2015	growth
Tsinghua U	CHINA	819	1768	115.9%
Zhejiang U	CHINA	730	1762	142.4%
Peking U	CHINA	622	1538	147.3%
Shanghai JT U	CHINA	664	1403	111.3%
Fudan U	CHINA	469	1224	161.0%
Huazhong UST	CHINA	241	1045	333.6%
NU Singapore	SINGAPORE	1042	1597	53.3%
Nanyang TU	SINGAPORE	568	1413	148.8%
U Hong Kong	HONG KONG	558	741	32.8%
Seoul National U	SOUTH KOREA	742	1182	59.3%
National Taiwan U	TAIWAN	604	786	30.1%
U Tokyo	JAPAN	1323	1333	0.7%
Kyoto U	JAPAN	968	932	- 3.7%
MIT <i>[for comparison]</i>	USA	2091	2565	22.7%

High citation papers, in top 10% of research field, in maths and physical sciences, 2012-2015 (Leiden data)

World rank	University and system	Maths/ Computing
1	Tsinghua U CHINA	367
2	Nanyang TU SINGAPORE	259
3	Zhejiang U CHINA	256
4	Huazhong UST CHINA	250
5	MIT USA	245
6	Harbin IT CHINA	236
7	National U SINGAPORE	226
8	Stanford U USA	208
9	Xidian U CHINA	205
10	Shanghai JT U CHINA	196
11	City U Hong Kong HK	188
12	U Texas Austin USA	187
13	South East U CHINA	184
14	UC Berkeley USA	184
15	Beihang U CHINA	177

World rank	University and system	Physical Sci/ Eng
1	UC Berkeley USA	1176
2	MIT USA	1175
3	Tsinghua U CHINA	1054
4	Stanford U USA	976
5	Nanyang TU SINGAPORE	931
6	Harvard U USA	875
7	Zhejiang U CHINA	857
8	U Cambridge UK	801
9	National U SINGAPORE	749
10	U Science & Tech CHINA	720
11	ETH Zurich SWITZERLAND	678
12	U Tokyo JAPAN	649
13	Shanghai JT U CHINA	638
14	Peking U CHINA	636
15	Caltech USA	635



Combining all top 10% papers in maths, computing, physical sciences, engineering, 2012-2015 (Leiden data)

World rank	University and system	Top 10% papers in Maths, Computing, Physical Sciences, Engineering
1	Tsinghua U CHINA	1421
2	MIT USA	1420
3	UC Berkeley USA	1360
4	Nanyang TU SINGAPORE	1190
5	Stanford U USA	1184
6	Zhejiang U CHINA	1113
7	Harvard U USA	1008
8	National U SINGAPORE	975
9	U Cambridge UK	936
10	ETH Zurich SWITZERLAND	842
11	U Science and Technology CHINA	835
12	Shanghai Jiao Tong U CHINA	834
13	Peking U CHINA	791
14	U Texas Austin USA	780
15	Harbin IT CHINA	776
19	U Tokyo JAPAN <i>[for comparison]</i>	725

Divergence in politics between globalization East and West

Recent geopolitical events such as Brexit and the US turning its back on multilateral trade and cooperation create waves of uncertainty in higher education regarding international cooperation, the free movement of students, academics, scientific knowledge and ideas.

At the same time China is launching new global initiatives with its New Silk Road (or One Belt One Road) project, which could potentially span and integrate major parts of the world across the Euro-Asian continents, but likely on new and different conditions, also for higher education.



Waves of populist anti-globalization

Internationalisation futures in light of anti-globalisation sentiments

Scholars find little cause for optimism in European future of internationalisation

For-profit higher education and international recruitment agents will benefit from the current wave of nationalism in the US and Europe, according to two leading scholars of international higher education.

Philip Altbach and Hans de Wit, respectively founding director and director of the Center for International Higher Education at Boston College, predict that the "commercial side of internationalisation" will gain from populist political climates in some Western countries, even though "anti-immigration sentiment points in the opposite direction".



Across the world, the political winds are blowing against internationalisation and higher education in general.

A *THE* survey of scholars carried out at the beginning of the year found that 39 per cent of UK nationals and 53 per

Internationalisation: seeing through the world's sceptical eyes

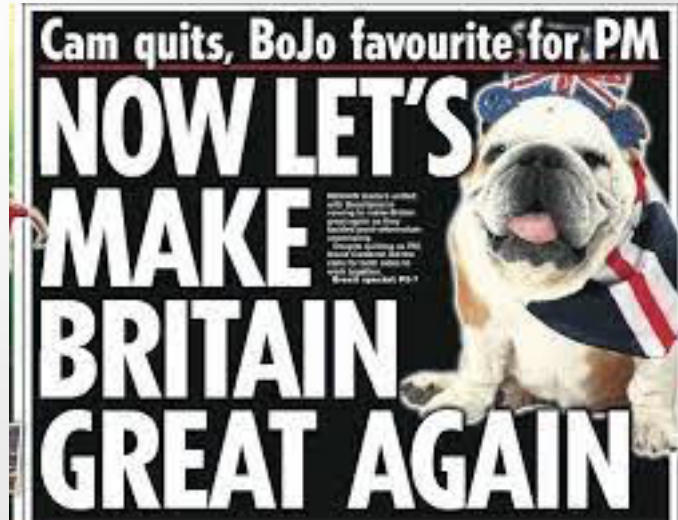


Globalization winners and losers in the West

Winners	Losers
<ul style="list-style-type: none">• cosmopolitan urban elites• deregulated finance• high citation scientists in strategic or marketable research areas• graduates from affluent families	<ul style="list-style-type: none">• workers displaced by free trade competition and offshoring of production• US home owners caught by collapse of asset prices• US people dependent on minimum wage• those living in rural areas• those without university degrees



Populist backlash: Brexit





Attacks on science and university experts





'I love the uneducated' – Donald Trump (and I think that climate change science is fake news)

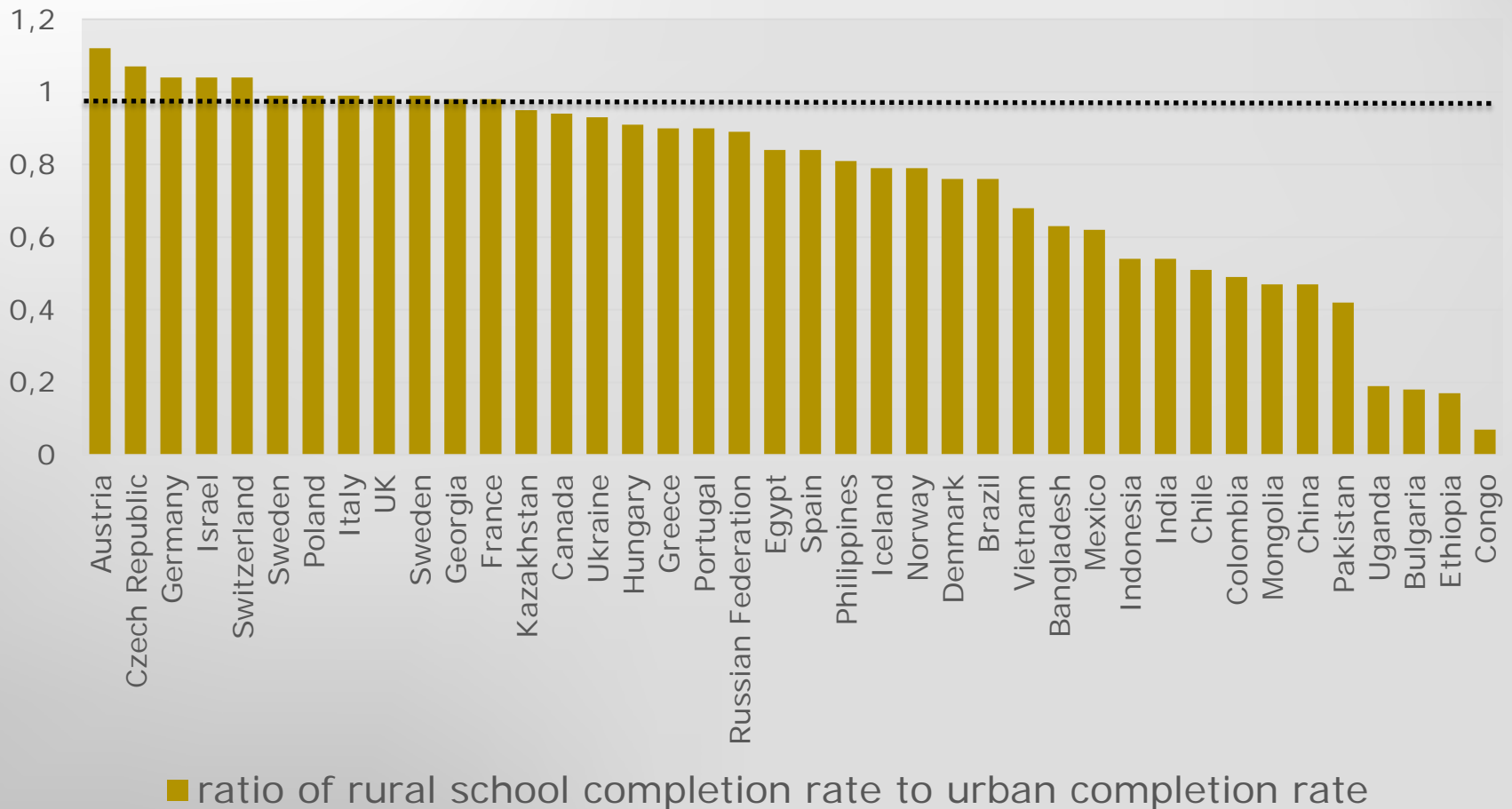


Brexit and education, 2016 referendum UK

	LEAVE	REMAIN
Total (same for men and women)	52	48
EXIT POLLS		
18-24 years	27	73
Higher degree	36	64
First degree	43	57
Secondary education	64	36
Primary education	72	28
KINGS COLLEGE LONDON STUDY		
Degree holders	26	74
No qualifications	78	22

Rural/urban splits are shaping politics: Rural disadvantage in school completion

Ratio of rural end-school completion rate to urban end-of-school completion rate, 2009-2014, selected countries, UNESCO data





Is the East/West global cleavage two sides of the same coin?

In some ways yes it is zero sum—

- Labour: Price equalisation of cost of labour on global scale in deregulated setting – most of Asia gains, West loses
- Capital: High growth dynamic emerging economies in Asia capture growing share of global capital
- Politics: Declining Anglo-American hegemony promotes fears and resentments, political backlash and destabilization

The two zones are also heterogeneous, in ways that play out to the advantage of East at this historical moment—

- They are at different points in modernisation process, fast development (East) and mature system (West)
- They have different political systems: More regulated capitalism in East modifies or avoids finance sector crises

A question – where does Japan and Japanese higher education fit in this East/West description?

4. The New Silk Road

Implications for higher education and research cooperation between China and Europe



Towards a research proposal

Marijk van der Wende (Utrecht University)
William Kirby (Harvard University)

Prior Research (2015)

CHINA: FOLLOWER OR LEADER IN GLOBAL HIGHER EDUCATION?

中国：全球高等教育的追随者还是领导者？

It is time to view China not just as a follower, but also look at its potential role as a global leader in higher education.

Marijk van der Wende
Jiabin Zhu



Harvard Center Shanghai
哈佛上海中心



Further Research (2017-2020)

Focus & Aims

China's rise in global higher education and R&D

More in particular, explore the possible implications of the **New Silk Road** (or China's One Belt One Road policy) for **higher education and research cooperation between China and Europe**.



How will these new relationships affect European higher education and research?

(How) will China's values impact higher education, and do we actually understand these values at all?

What will be the impact of these developments on the global HE landscape?

And the dominant role of the US HE sector in it?

How do we prepare our students for safe travels on these silk roads towards a new history of the world?



Relevance

The New Silk Road will carry more than consumer goods alone.

As in previous historical periods, people, ideas, and knowledge will travel along with mutual influence.

China's rise is among the most important geo-political trends that will characterize the (early) 21st century.

And like all previous major geopolitical trends and events, have impacted international cooperation in higher education (for better or for worse), this can also be expected to result from the NSR project.

The size of China's higher education and R&D system

and the speed at which it develops both to global standards, will impact that of its major competitors globally, not at least as it actively seeks to cooperate with academic partners along the Silk Road.

Improving our understanding of globalization:

Similarities and differences in processes of regional integration (e.g. EU, ASEAN) and how they may interact along the NSR will help to further our understanding of globalization.

The New Silk Road

Emerging opportunities for Higher Education, Research, and Innovation



Mutual interests & challenges:

- Trade
- Foreign investment (AIIB)
- Skills & technology transfer
- Foreign policy, immigration, security
- Open access
- Internet openness

University Alliance of the New Silk Route

ERC-China
H2020
Erasmus Mundus

ECTS-ACTFA

Tuning EU-China

Ministers' conference on *"Building a China-EU education Silk Road towards the future"* (October 2016)

Third *EU-China Innovation Co-operation Dialogue* – H2020 (June 2017)

Areas of Inquiry

What are the trends in academic “traffic” on the NSR?

Mapping of Flows of students, researchers, programmes, projects, funding (grants), data, innovations, etc.

How do HEIs respond to new opportunities?

Case studies on various forms of inter- and transnational higher education: networks, alliances, joint programmes and ventures, branch campuses, etc

Under which conditions are these activities happening?

Who defines these conditions?

Analysis of policy documents & formal agreements between governments, institutions, professional bodies, etc.

Based on which values?

Regarding the model / mission of the university; role of academic freedom, institutional autonomy, scientific integrity?

Impact on the global HE landscape and the role for the US HE sector in it

Conceptual perspectives



It is time to view China not just as a **follower**, but also look at its (potential) role as a global **leader** in higher education (Van der Wende & Zhu, 2016)

It is appropriate to view China's higher education development from **both perspectives**, i.e. as object and subject of globalization

After three decades during which observers have watched **how the world impacted China**, it is now necessary to understand **how China is impacting the world** (Shambaugh, 2013).

With China and globalization, we should not choose between thinking of the Chinese state as only either being reshaped by international forces or itself reshaping the global structure. ***We are instead better off drawing from all of these perspectives at once*** (Wasserstrom, 2014).

Towards a comprehensive lens

Perpective of overarching goals:

- sustainable development
- societal challenges (H2020)

Processes (mechanisms):

- cooperation and competition

“Sustainable and inclusive version of globalization”

“Achieving shared growth through discussion and collaboration”

“Increase openness and cooperation in building innovation capacity”

Multi-actor: (supra)national, regional governments, HEIs, other stakeholders

Frameworks for the analyses of integration processes in:

- Europe: EHEA (Bologna), ERA
- ASEAN
- NAFTA
- MERCOSUR

Outcomes:

- convergence and divergence

5. What methods do we use to understand the global setting?

Conceptual challenges

Data should thus be analysed and interpreted from both a European / Western and a Chinese perspective:

- How do these differ?
- How can these differences be overcome?
- How to design a combined / integrated analytical framework?

We know a comparative perspective is insufficient to grasp the dynamics and impact of globalisation, flows and dynamics



If global collaboration is to be taken forward, among scholars the time of separated mono-national and mono-cultural views has passed

What theories and methods can we use to understand these developments; and especially, how can we establish ways of seeing in higher education research that comprehend the world using the sensibilities, the perspectives, of both East and West—whether by blending the differing viewpoints, or by establishing a position external to all



Methods of combining understandings from both East and West

- working in multi-country teams studying higher education from different vantage points – looking at each other's systems, and their own through someone else's eyes.
- Towards the development of a combined view (a synthesis)
- East/West polarity is fruitful. Japan has a different perspective to that of China, and necessary to forming any combined view
- (at the other end of Eurasia, UK is different to the rest of Europe, what is it about islands on continental peripheries?)
- need to study differing 'ideas of the university' and different ideas of role of government, autonomy, academic freedom
- need to study differences and similarities in core ideas about education and students



Comparing the university, the state, the public good – in eight countries

Centre for Global Higher Education project 1.1

- Japan, China, Chile, France, UK, Poland, Finland, Trumpland
- interviews in two universities (global research WCU, regional/local research university) and in government
- focus on concepts and practices of the public good role of higher education (equity, region-building, research and knowledge, graduate formation, etc etc) – both national and global good
- underlying notions of size, nature and role of state, community (civil society), university/government relation, autonomy, academic freedom, agency of external stakeholders
- *Objective* – to form a generic conceptual framework for empirical studies of the public good role, that will work everywhere



Comparing Anglo-American and Chinese civilizational ideas of universities and the public good

Centre for Global Higher Education project 1.1 +
(Lili Yang PhD study)

- exploring the political theory tradition of East Asia, and modern ideas about state/society/individual/role of higher education – from Warring States to the present
- exploring the political theory tradition of Anglo-America, and modern ideas about state/society/individual/role of higher education – from 4th century BCE Athens to the present
- What are the similarities and differences? (an inquiry into both contrasting language/meanings and contrasting practices)
- *Objective* – to explore the potential for a hybrid approach, based on key common concepts and ‘unity in diversity’



Comparing self-formation East and West

Research paper in development

- **Chinese civilizational tradition and practices in learning, meanings for self-formation in higher education. Sinic education and the social/individual in social relations**
- **(much later) self-formation in the West, Kantian/Humboldtian/Bildung self-formation as a form of continuing modernization, of public rationality; this also shaped Dewey and the pragmatists in the US**
- ***socially situated agency in higher education* today – a democratic and solidaristic alternative to the market-consumer paradigm and to the growth of self-referenced identity politics (self without common good)**
- ***Objective* – to combine elements from Confucian practice, Bildung and today's self-determining subject, to develop a new synthetic idea of the essence of higher education as *the self-formation of the individual and society as a process of the creation of freedom***

(wish me luck)