Global trends in postgraduate education

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Strategic Planning & Provost’s Office
President’s Office

TPgOMWG Retreat
28 June 2017
Overview

VUCADEMIA

Trends

Challenges

Opportunities
VUCA (U.S. military term)

Volatility
Uncertainty
Complexity
Ambiguity
Turbulence (n.)

• Violent, rough commotion
• Irregular, random, unstable flow
• Haphazard, jagged motion
• Disturbed, chaotic state
“Tumultuous times”

- Demands for greater accountability
- Increasing public expectations
- Decline in trust
- Diminishing resources
- Shifting global geopolitics
“Storm of change”

- Complex, changing government policy, e.g. immigration
- REF (Research Excellence Framework)
- TEF (Teaching Excellence Framework)
- Brexit

Andy Shenstone
Leadership Foundation for Higher Education, U.K.
March 2017
“Turbulence in the new model”

- Fiscal austerity
- Increased reliance on tuition
- Shifts in funding uses
- Varying student body

Gerlowski & Seabrook
Journal for Development and Leadership
December 2014
“Incessant turbulence”

“Institutions are having to become increasingly fluid, disorganised, agile, and obsessively customer-facing in order to maintain direction and survive”.

Michael Gell
Senior advisor at BT Laboratories
March 1995
Trump + Twitter = Turbulence
Vucademia

1. Increasing competition for the best staff and students
2. Increasing globalisation and mobility
3. Evolving consumer (student) expectations
4. Advancing technologies (and the pressure to keep up)
5. Changing workforce demands
6. More scrutiny (e.g. CAG)
7. Changing nature of “university education”
“[U]niversities face so much turbulence and uncertainty after the Brexit vote and the rhetoric surrounding immigration”.

Lord Christopher Patten
Former governor of Hong Kong
January 2017
“Changes in the status quo in the international scene have cast a cloud of uncertainty on not only the world economy, but also higher education.”

Tony Chan
President, HKUST
April 2017
Trend 1

EMPLOYABILITY DRIVING APPLICATIONS
The three players

- **Governments** pushing for more competent workforces
- **Students** eager for better employment opportunities
- **Universities** needing to attract talent to boost research (and income)

These are “helping propel a wave of students seeking additional qualifications beyond the first degree.”

British Council (2014)
*Postgraduate Student Mobility Trends to 2024*
Never mind the car, get the degree

Global, 1995=100

Sources: UNESCO, Economist Intelligence Unit; The Economist

*At 2005 $
Impact of employability

• 77% of undergraduates, and 68% of A-Level students, are planning to do a postgraduate degree.

• 62% believe having the degree would make “significant difference” to their employment chances and salary.
The “upper edge”

“A lot of people now have an undergraduate degree, and having a master’s just give you that upper edge above everyone else.”

Morgan & Direito (2016)
The Postgraduate Experience Project
Positive employment outcomes

- Employed/working/studying six months of graduating
  - Ug: 74%
  - Pg: 86%
- In “professional or managerial roles”
  - Ug: 65%
  - Pg: 91%
- Unemployed
  - Ug: 9%
  - Pg: 5%

“Further study isn't just a tactic to delay getting a job”, but something that provides “positive employment outcomes”.

Higher Education Careers Services Unit, U.K. (2013)
What do graduates do?

The University of Hong Kong
Asia’s Global University
The “postgraduate premium”

• 11% of people in work, aged 26-60, have a Pg degree, up from 4% in 1996.

• U.K. Pg degree holders enjoy a higher wage premium, GBP5,500 (HKD55,000) per year on average.

• U.S. Pg degree holders enjoy almost twice as much: USD16,500 (HKD128,000) per year on average.

The postgraduate premium
Mean earnings in the U.S. (2015)

Mean earnings (USD)

Educational attainment

Less than 9th Grade, Male: 22,710, Female: 26,009
High school graduate, Male: 36,392, Female: 39,640
Some college, no degree, Male: 55,391, Female: 40,315
Associate degree, Male: 59,481, Female: 45,999
Bachelor's degree, Male: 88,428, Female: 61,747
Master's degree, Male: 187,857, Female: 116,912
Professional degree, Male: 142,758, Female: 102,843
Doctorate degree

Mean earnings in the U.S. (2015)

U.S. Census Bureau (August 2016)
Digest of Education Statistics 2015
Greater impact for poorer countries

**Poorer countries, richer returns**

Average increase in earnings for every additional year of tertiary education 1970-2013, %

- Sub-Saharan Africa
- South Asia
- Latin America
- East Asia
- World
- High income
- Middle East/North Africa
- Europe/Central Asia

Source: World Bank
Master degrees earned in the U.S.

National Center for Education Statistics, U.S. (March 2016)
Digest of Education Statistics 2015
Trend 2
HEIGHTENED STUDENT MOBILITY
International student mobility

• Between 2000 and 2011, the number of international students over doubled.

• Today, almost 4.5 million tertiary students are enrolled outside their country of citizenship.

• Largest numbers of international students – from China, India and Korea. Asian students account for 53% of all students studying abroad worldwide.

OECD (2013)
Education Indicators in Focus
Global destinations

Canada and Australia predicted to have the highest annual average growth in inbound postgraduate students (4.1%)

The U.K. is anticipated to lose market share over the next decade

Germany is expected to host 113,000 inbound postgraduate students

The U.S. will continue to be the world’s most popular student destination

Growth in Japan is projected at 1.6%

The University of Hong Kong
Asia’s Global University
International students in the U.S.

- International student enrolment, 5.2% of all students at U.S. universities, surpassed one million in 2015/16.

  - China: 328,547
  - India: 165,918
  - Saudi Arabia: 61,287
  - Korea: 61,007

  - graduate 
    - China: 123,250 (37.5%)
    - India: 101,850 (61.4%)
    - Saudi Arabia: 13,210 (27.2%)
    - Korea: 16,613 (21.6%)

Open Doors (2016)
Report on international educational exchange
Institute of International Education (2016)
By 2025, there will be a projected **eight million** international students worldwide.

OECD (2013)
*Education Indicators in Focus*
Growth projections to 2024

• China will continue to fuel growth.
• India “likely to be the real opportunity for inbound student growth over the next decade”.

• Strongest average annual growth:
  - Nigeria (8.3%)
  - Indonesia (7.2%)
  - Pakistan (6.4%)
  - Saudi Arabia (5.2%)

British Council (2014)
Postgraduate Student Mobility Trends to 2024
Trend 3

COMPETITION FOR STUDENTS

the best
“The talent pool is increasingly seen as an international one in which ranked universities across the world are competing for the best students.”

British Council (2014) Postgraduate Student Mobility Trends to 2024
“Competition has intensified not just for excellent academics but also for excellent students.”
“The number of foreign students at a university will define its success.”

Shinzo Abe
Prime minister of Japan

QS Intelligence Unit (2014)
Prime Minister Abe to Accelerate Internationalisation of Japanese Universities
Country initiatives

**Germany**: aims to increase number of international students by 17% to “gain long-term friends ... throughout the world”.

**Japan**: *Global 30 Project* involves leading Japanese universities offering complete degree programmes in English.

**Mexico**: *Proyecta 100,000* to send 100,000 Mexican students to U.S. universities and enrol 50,000 U.S. students at Mexican institutions by 2018.

**Russia**: 5/100 initiative (2012) boosts international faculty to 10%.
Russia’s internationalisation strategy

To get from 200,000 to 710,000 students by 2025:

1. Introduction of professional orientation work and special educational programmes for foreign students

2. Simplified rules for entry and exit of students, employment and internships

3. Highly qualified students invited to act as curators for other foreign students from arrival up to graduation

4. Russian citizenship for highest performing graduates using simplified procedures

5. Tax breaks and other benefits for participating institutions

6. Government-backed single online portal for students wanting to study in Russia

University World News (June 2017)
Russia to triple the number of international students
The Chinese return home

- China, a key source nation for Pgs, is responding to growing pressure to improve quality, scope and availability of Pg programmes at home.

- Enormous resources pumped into graduate education capacity across thousands of universities.

- More western-influenced teaching and research practices implemented by professors trained in the U.S. “They are beginning to teach more like we do, publish like we do, and operate their labs like we do.” Institute of International Education (2014).
Peking in Oxford

• In early 2017, Peking University bought a stately home to house its HSBC Business School.

• Designed for students from the U.K., Europe and China, the school will be fully functional by Summer 2018.

• PKU aims to “strengthen the school’s international reputation”.

• China is “opening up its higher education market to the world”.

Foxcombe Hall, Oxford
£8.8m
Tsinghua goes to the U.S.

The Global Innovation Exchange
(partially-funded by Microsoft)

Tsinghua established its physical footprint in the U.S. in 2015 as part of a joint venture with the University of Washington.

First Chinese university to build a physical campus in the U.S.

Dual degree programme offered under the joint institute, Global Innovation Exchange (GIX).

GIX enrolls 100 new students each year, and some 3,000 learners by 2025.
A slice of Scotland in NYC

The New York State Education Department gave GCU a “provisional charter” to award degrees at its New York branch campus – the first foreign higher education institution to have degree-accrediting powers in the U.S.

June 2017
Ex-CALTECH president heads KAUST

King Abdullah University of Science and Technology (KAUST) is an international, graduate-level research university dedicated to inspiring a new age of scientific achievement in the Kingdom, in the region, and around the globe.
Qatar builds from scratch

**Education City** houses branch campuses of some of the world’s universities in 14 km² on the outskirts of Doha:

- Virginia Commonwealth University (1998)
- Cornell (2001)
- Georgetown (2005)
- Northwestern (2008)
- HEC Paris (2011)
- UCL (2011)
France develops own Ivy League

Initiatives d’Excellence scheme (Idex)

• 7.7 billion Euros;
• Establish five to seven “world class” universities to compete internationally for best students and academics;
• Requirement to work more closely with business to commercialise research and form spin-offs.
Japan goes global

Top Global University Project (2014)
To advance internationalisation so graduates can “walk into positions of global leadership”.

Selected universities get extra funds from ¥7.7 billion (USD77 million) with bulk to 13 research universities.

The Japan Times (2014)
Universities aim to boost their global ranking
Singapore: “Boston of the East”

Global Schoolhouse Project (2002)
• 150,000 international students by 2015;
• Lift education sector’s contribution to GDP from 1.9% to 5%;
• “Attract talent from all over the world to add sparkle to our diamond”.

Lee Hsien Loong, Singapore’s prime minister

University World News (2016)
What happened to the global schoolhouse?
Responding to internationalisation

Percentage of institutions with dedicated strategic plans and task forces for internationalisation (2016)

American Council on Education (2017)
*Mapping internationalisation on U.S. campuses: 2017 edition*
Responding to internationalisation

Percentage of institutions hiring overseas recruiters to recruit international students

American Council on Education (2017)
Trend 4

EVOLVING STUDENT PROFILES AND EXPECTATIONS
International PGT student profile

Open to range of programme designs

Seeking to build professional capability or initiate career change

Committed to shorter term on study overseas

Far more reliant on private/personal funding

More likely to seek expert opinion from academics, alumni and agents

Focused on employability, post-study outcomes and ROI

More discriminating in choices

More mature

More mobile

Source: London Metropolitan University

UK HE International Unit (2015)

International taught postgraduate students: The UK’s competitive advantage
Motivations for postgraduate study

1. Progress in current career path
2. Progress to higher-level qualification
3. Improve employment prospects
4. Personal interest
5. Requirement to enter a particular profession

www.TopUniversities.com
Applicant survey: Emerging markets 2016
15,746 respondents
Priorities when choosing institution

1. Overall reputation
2. Subject reputation
3. Employability/career prospects
4. Funding available
5. Programme details
6. Location
7. Department reputation
8. Cost

Students “want to be sure that they have got a big global brand on their certificate that’s going to be a passport to their future”.

*Phil Baty*
Editor-at-large of *Times Higher Education*

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**www.TopUniversities.com**
*Applicant survey: Emerging markets 2016*
15,746 respondents (applying for Pg degree)
Drivers of destination choice

1. Scholarship/financial aid
2. International recognition of qualifications
3. Would like to work there afterwards
4. Cultural interest and lifestyle
5. Improve language skills

www.TopUniversities.com
Applicant survey: Emerging markets 2016
15,746 respondents
Attitudes towards Pg study

93.1%  Pgs require more independent study than Ugs

87.4%  Pgs want more personalised study experience than at Ug level

74.9%  Pgs expect more value for money at Pg level than at Ug level

21.6%  Pgs do not know what to expect at Pg level

Morgan & Direito (2016)
The Postgraduate Experience Project
Applicant profile overview

1. Applicants expect to more than double their current salary after completing a postgraduate degree.

2. Masters applicants would most like to work in engineering after graduating.

3. Entrepreneurship is a popular long-term ambition – 20% would like to run their own company someday.

4. Subject-specific reputation sometimes more important than institutional reputation.

www.TopUniversities.com

Applicant survey 2015: Applicant ambitions

7,153 respondents
Top 10 industries for Pg applicants

26%  Engineering
24%  Consulting
22%  Education
22%  Technology
21%  Finance
21%  Government/public sector
12%  Manufacturing/production
12%  Energy/environment/utilities
11%  R&D/science
11%  Media/advertising

www.TopUniversities.com
Applicant survey 2015: Applicant ambitions
7,153 respondents
Challenges facing HKU
(and the Hong Kong higher education sector)
Falling student numbers

Census and Statistics Department (2016)
Annual Digest of Statistics 2016
Falling TPG student enrolment

Part-time enrolments falling

Full-time enrolments starting to fall

Census and Statistics Department (2016)
Annual Digest of Statistics 2016
Fewer non-local students ...

HKSAR Government (2017)
Replies to initial written questions raised by Finance Committee Members in examining the Estimates of Expenditure 2017-18
Competition (from TNEs)

455

Registered education courses run by non-local providers

60.7% UK
16.3% Australia
12.1% U.S.
4.4% China
0.4% Canada

British Council Educational Intelligence (2016)
Education Matters: Hong Kong
Competition (from UGC providers)

Self-funded TPg programmes in UGC institutions

<table>
<thead>
<tr>
<th>Academic year</th>
<th>EduHK</th>
<th>CUHK</th>
<th>LU</th>
<th>HKBU</th>
<th>CityU</th>
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<td>20</td>
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<td>68</td>
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<td>2014/15</td>
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<td>24</td>
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<td>2015/16</td>
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<td>24</td>
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<td>2016/17</td>
<td>32</td>
<td>182</td>
<td>24</td>
<td>186</td>
<td>182</td>
</tr>
</tbody>
</table>

768 programmes on offer in 2016/17

HKSAR Government (2017)
Replies to initial written questions raised by Finance Committee Members in examining the Estimates of Expenditure 2017-18
Branding and positioning

Official university websites

<table>
<thead>
<tr>
<th>Importance</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Essential</td>
<td>63%</td>
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<tr>
<td>Very important</td>
<td>28%</td>
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<tr>
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<td>8%</td>
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<td>1%</td>
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<tr>
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<td>0%</td>
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University ranking websites

<table>
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<tr>
<th>Importance</th>
<th>Percentage</th>
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<tbody>
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<td>Essential</td>
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<tr>
<td>Very important</td>
<td>43%</td>
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<tr>
<td>Quite important</td>
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<tr>
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<tr>
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<td>2%</td>
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www.TopUniversities.com
Students online: Global trends 2015
5,400 respondents in 33 countries
# Reaching out to target audiences

## Social media

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<thead>
<tr>
<th>Importance</th>
<th>Percent</th>
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<tr>
<td>Essential</td>
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<tr>
<td>Very important</td>
<td>23%</td>
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<tr>
<td>Quite important</td>
<td>30%</td>
</tr>
<tr>
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<td>25%</td>
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<tr>
<td>Don’t use</td>
<td>10%</td>
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## Student forums/chat rooms

<table>
<thead>
<tr>
<th>Importance</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Essential</td>
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<tr>
<td>Very important</td>
<td>30%</td>
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<tr>
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<td>32%</td>
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<tr>
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<td>17%</td>
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<tr>
<td>Don’t use</td>
<td>8%</td>
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</table>

www.TopUniversities.com

*Students online: Global trends 2015*

5,400 respondents in 33 countries
Hardest to find information ...

- **Funding**
  - Undergraduate: 6%
  - Masters: 38%
  - PhD: 60%

- **Application/admissions**
  - Undergraduate: 17%
  - Masters: 21%
  - PhD: 62%

- **Course content**
  - Undergraduate: 18%
  - Masters: 21%
  - PhD: 61%

- **Student visas**
  - Undergraduate: 17%
  - Masters: 38%
  - PhD: 45%

- **Location**
  - Undergraduate: 6%
  - Masters: 21%
  - PhD: 73%

www.TopUniversities.com

*Students online: Global trends 2015*
STEM, STEM[M] or STEAM?

1. Approaches to education don’t do enough to address structural changes of automation.

2. But ... singular focus on STEM education “misguided”.

3. More focus on the arts to prepare students for jobs that require softer, non-technical skills, (e.g. elder care).

4. Students should “learn how to learn” to adapt to fast-changing and more frequent job changing world.
“I’m not worried about artificial intelligence giving computers the ability to think like humans. I’m more concerned about people thinking like computers without values or compassion, without concern for consequences. That is what we need you to help us guard against. Because if science is a search in the darkness, then the humanities are a candle that shows us where we’ve been and the danger that lies ahead.”

*Tim Cook, Apple CEO (2017)*

MIT commencement speech
Badging & credentialling

1. Degrees considered “basic unit of educational currency”.

2. Shift away from “gold standard of degrees”.

3. Embracing of badges, microcredentials and nanodegrees.

4. All these are based on a “market-driven floating exchange rate”.

Carla Casilli
Institute for Learning Innovation and Development
University of Southampton
“Electronic badges”, now being created by startups, proving that the holder has earned a particular qualification (at a relatively low cost), are disrupting traditional high cost university education.

Kevin Carey
Author of The End of College
Educating millennials

Learning:
• small, ongoing increments
• over time
• accessed on demand
• multiple devices
• multiple forms of media
• focused on speed
• must be efficient and effective

Doug Harward
CEO of Training Industry, 2016
“The purpose of the CAGs is to provide a set of guidelines for the institutions to ensure that there is no cross-subsidisation of UGC resources to non-UGC-funded activities.”
“The call for effectiveness in the use of resources will be perceived by many inside the university world as the best current definition of evil.”

Clark Kerr
Architect of the Californian higher education system in the 1960s and Berkeley’s first chancellor
Universities “have the characteristics of a workers’ co-op. They expand slowly, they are not especially focused on those they serve, and they are run for the comfort of the faculty.”

*Larry Summers*
Former president of Harvard University
Singapore: Lessons learned

- Johns Hopkins biomedical research facility failed to recruit sufficient doctoral students, and to meet eight out of 13 performance benchmarks (closed 2006)
- UNSW failed to recruit sufficient students (closed 2007)
- Tisch School of Arts suffered financial deficits (ended masters courses 2012)
- Chicago Booth School of Business wanted to be nearer China (moved to Hong Kong 2013)

The Straits Times (2014)
Singapore may rue fall in foreign student numbers
Opportunities for HKU
Education “hubs”

THE World University Rankings 2014-15
Areas are resized according to the absolute values derived from the distribution of overall scores in the top 200 of the rankings, resulting in areas having the highest density of highly scored universities are the ones that stand out.

Hennig & Baty (2015)
www.viewsoftheworld.net
Interest in further study

Census and Statistics Department (2015)
Thematic Household Survey Report No. 56
Recommendations

1. Offer the best (or most meaningful) programmes that align with the Asia’s Global University brand.

2. Recruit the best students, (provide funding where necessary) and place more emphasis on student diversity on campus.

3. Consider how students can boost broader research efforts.

4. Differentiate the strengths of HKU T Pg qualifications in marketing initiatives.
Recommendations: CAG

CAG gives us a real opportunity to ask:
• Why are we doing this?
• What programmes do we truly want to offer?
• What’s going to excite us? What’s going to excite the market?
• How can an HKU TPg programme really make a difference?