

Media Aesthetics

10 New Media and the Transformation of Higher Education

01: Introduction: Death of the University?

- A transformative impact of universities
- MOOCs (massive open online courses)
 - [Khan Academy](#): over 4000 online lectures since 2006, a mission of 'a free world-class education for anyone anywhere'
 - For-profit companies: [University of Phoenix](#), [the Kaplan](#) and Apollo Groups, corporate universities by [Microsoft](#), [Motorola](#), [Disney](#) and [McDonalds](#)
 - Critical evaluation of MOOCs: 'disruptive university', 5 Ps (practical issues, personal issues, pedagogical issues, policy issues, philosophical issues)



02: Ten Drivers of Change in Higher Education

- 1. The globalization of higher education
- 2. The rise of a knowledge economy [compare to univ.]
- 3. The dispersal of knowledge and the dramatically reduced costs of access to knowledge through the internet
- 4. Rising demand for higher education worldwide
- 5. Changes in government policies to manage costs of higher education and promote differentiation within the sector
- 6. Changing student demographics and new expectations on the part of students about graduate skills and knowledge
- 7. Changing relations to industry
- 8. Cost pressures on higher education
- 9. The rise of new for-profit higher education providers
- 10. The implications of global rankings systems for universities

1. The globalization of higher education

- 2010, 3.6 million internationally mobile students (UNESCO)
 - Many seek residency or citizenship in the country in which they are studying
 - From China, India, South Korea: 28 % of all international students, 17% from China
 - US and UK 30% in 2010
 - France, Germany, Russia, US, Malaysia, Singapore: both host and abroad
 - Australia 25% international students

TABLE 10.1 ► MAJOR SOURCE AND DESTINATION COUNTRIES FOR INTERNATIONAL STUDENTS, 2010

	Source countries (000s)	Destination countries (000s)
1	China (568)	US (684)
2	India (211)	UK (390)
3	South Korea (127)	Australia (271)
4	Germany (105)	France (259)
5	Turkey (72)	Germany (200)
6	France (68)	Japan (141)
7	Russia (62)	Russia (129)
8	Malaysia (58)	Canada (95)
9	US (55)	China (71)
10	Morocco (54)	South Africa (60)

Source: UNESCO 2012b

— Trends

- 1. As sources of institutional funding: Australia (full-fee international students, 5.8% of university income in 1995 to 15% in 2005)
- 2. Development of cross-border teaching programs: offshore campuses, partnerships with local providers or cross-institutional joint degrees (200 international branch campuses in 2011: 78 from US, 20 from France, 25 from UK)
- 3. The growing importance of international sources of research funding and international collaborative research project teams
- 4. Cross-border accreditation of programs (MBA in Advanced Collegiate School of Business by European Quality Improvement System and the US-based Association)

2. Higher Education and the Knowledge Economy

- Use of new knowledge, lifelong learning for continuous upgrading and adapting skills in the context of rapid technological and structural change
 - Technology: replacement of lower-skilled labour, making more valuable those workers who have the ability to use the new tools
 - The gap in earnings between higher education graduates and without a higher degree is growing
- **Concept of human capital**: 'the total value of a qualified population was more than the sum of the individual parts, and one person's degree could add value to that of another, leading to higher levels of creativity, innovation and productivity' : 'symbolic analyst' 'the creative class'
- The Blair Labour government in the **UK** set a target in 1999 for 50% of 18 to 30 year olds in higher education by 2010
- The Rudd and Gillard Labor governments of **Australia** set a target in 2009 for 40% of 25 to 34 year olds in higher education by 2025.
- **Sweden** set a target 50% by the age of 25 in higher education
- Barack Obama, **US** intends the US to have the highest proportion of its young people with tertiary qualifications in the world

3. Digital Networks and the Dispersal of Knowledge:

The dispersal of knowledge and the dramatically reduced costs of access to knowledge through the internet

- The internet has profoundly changed all aspects of the global circulation of knowledge
 - 1. Abundance: immeasurable volume of data, information, analysis, opinion available online
 - 2. Linking: search engines
 - 3. Permission-free publication: open-ended, near-zero barriers to publication, the onus to users themselves
 - 4. Public knowledge: without the traditional filters (peer-reviewed publication)
 - 5. Unresolved: not leading us closer to shared truth, but is rather revealing the extent of contestation
- While the internet and other associated developments have demonstrated the growing centrality of knowledge, it has also de-centered the university and scholarly academic communities

4. Rising demand for higher education worldwide

- OECD in 2010, 40% between 18-29 higher education
 - sharpest rise in Australia, Austria, South Korea, Czech Republic, Finland
 - Decline in New Zealand, Hungary
- Tertiary education [college, univ.] participation 18-22 year olds, between 2000 and 2010
 - 15 to 29% in East Asia and the Pacific
 - 8 to 26% in China
 - 9.4 to 17.9% in India
 - 22.6 to 40.5% in Latin America
 - 21 to 30% in the Middle East and North Africa
- **From elite to mass to universal higher education**
 - From elite to mass higher education in US, Western Europe in the 1960s and 1970s
 - Recently, China, India, South Korea, East Asian, Latin America
 - Phase 1: **elite** (shaping the mind and character of a ruling class, a preparation for elite roles)
 - Phase 2: **mass** (transmission of skills and preparation for a broader range of technical and economic elite roles)
 - Phase 3: **universal** (adaptation of the 'whole population' to rapid social and technological change)

- Elite universities are partly beyond economics

TABLE 10.2 ► CHARACTERISTICS OF ELITE, MASS AND UNIVERSAL HIGHER EDUCATION

	Elite (0–15%)	Mass (15–50%)	Universal (50%+)
Attitudes to access	Privilege of birth or talent	Right for those with appropriate qualifications	Obligation for middle and upper classes
Functions of higher education	Shaping mind and character; preparation for elite roles	Transmission of skills; preparation for wider range of professional and technical roles	Adaptation of whole population to rapid social and technological change
Curriculum and forms of instruction	Highly structured; based around academic conceptions of knowledge	More modular, flexible and semi-structured sequence of courses	Boundaries and sequences break down, as do distinctions between types of learning
Student career	Undertaken after secondary school as uninterrupted period of life	More deferred entry and mature-age entry	Softening of boundaries between formal education, work and other aspects of life
Institutional characteristics	Homogeneous, with high and common standards; many students on campus; campus separate from wider society	More diverse standards; mixed residential or commuting; campus more integrated into the community	Great diversity with no common standards; many students rarely or never on campus; boundaries weak or non-existent
Locus of power, decision making and academic administration	Collegiate; elite group with shared values and assumptions; academic amateurs selected as administrators by peers	Rise of the full-time academic-administrator; growth in professional bureaucracies	Full-time academic managers drawing on business management techniques; appointments from outside academe
Access and selection	Meritocratic, based primarily on school performance	Meritocratic, based on multiple criteria; equity provisions for underrepresented groups	Open access with targeted support for underrepresented groups

Source: Trow 2007: 244

5. Governmental Policies and the Changing Shape of Higher Education

: Changes in government policies to manage costs of higher education and promote differentiation within the sector

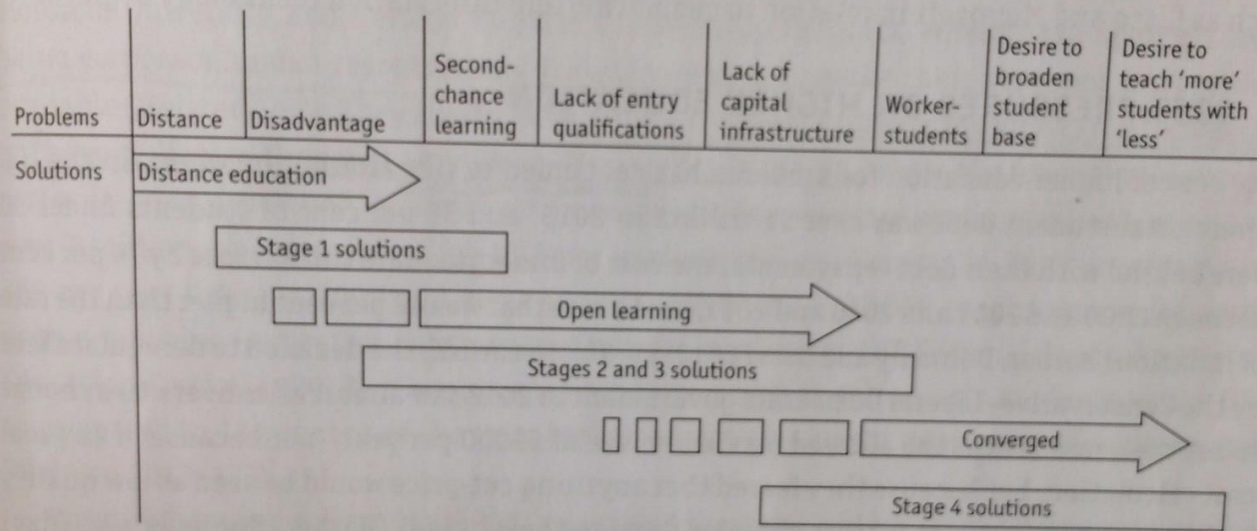
- Government: universities being efficient and responsive
- Universities: their independence from outside influences
- **Public good aspects of higher education**
 - 1. As public goods in the economic sense: non-rivalrous and non-excludable, public support and funding
 - 2. As scholarly institutions in a more socio-political and normative-philosophical sense
 - 3. As institutions that contribute to the public sphere: new ideas can be created and disseminated, critiqued and challenged.
- Benefits accrue disproportionately to those of middle-class and upper-class backgrounds
- Research funding tends to go disproportionately to elite universities

6. Changing student demographics and new expectations on the part of students about graduate skills and knowledge

- Wilhelm von Humboldt: the tradition of German university in the early 19th century → a teaching and researching institution, 'ungovernable spirit'
- Modern university as 'multiversity' → teaching, research, discovery, change, growth, national development
- The student as a disinterested pursuer of knowledge for its own sake: learner-earner, both public good and private benefit criteria
- Digital media technologies enable the more flexible delivery of education beyond the traditional classroom context: new for-profit higher education providers, ODE (open and distance education), worker-students



FIGURE 10.1 ► RELATIONSHIP BETWEEN EDUCATIONAL MODELS AND STAGES OF OPEN AND DISTANCE EDUCATION



Stage 1 solutions:

- print based

Stages 2 and 3 solutions:

- multiple media/telelearning
- recognitions of prior learning/non-formal learning
- competency testing
- cross-credit

Stage 4 solutions:

- Internet and multimedia
- articulation of programs
- blurring of delivery models and education sectors

7. Changing relations to industry

- A need for graduates in **better equipped for the workplace**
 - Employers [industries] feel ignored by HEIs (higher education institutions)
 - Between particular courses and the workplace: direct (law, accounting, medicine, architecture), indirect (business and management education, digital media, journalism), little direct (arts, social sciences, humanities)
 - Scholarly discipline vs. skills development for a particular work task
- On-the-job training vs. university degree
- **In the research:** Industry seeks generic skills (project management, working in teams and communication skills): distinct from particular set of skills or vocational field
- In the rapid technological change: **Industry** seeks 'just-in-time learning of new skills, Industry is also increasingly a competitor with universities, providing specialist professional programs in a more tailored way than universities can do, particularly in high-end business course. → industry certification of degrees: Cisco, Microsoft

8. Cost pressures on higher education

- **The cost of higher education** for students has continued to rise around the world.
 - **US:** total student debt over \$1 trillion in 2013, 35% under 30 in debt repayments, undergraduate tuition 74% rose between 2000-2001 and 2010-2011 (42% higher than the inflation)
 - **UK:** in 2012, maximum rate of 9000 pounds per year
 - High levels of graduate unemployment and declining average incomes in US and Europe, particular
- **Factors** driving up costs in higher education
 - Difficulties in substituting technology for labour in an activity (teaching): personal relations
 - The use of student: staff ratio as a measure for the quality of teaching
 - Institutional rigidities: difficult to close programs with low enrolments, to shift from one teaching field to another
 - The pressure to buy the best, particularly star researchers for perceptions of quality
 - mismatching between student expectations and those of government policy-makers: university ranking exercises (researching vs. teaching)

9. The rise of new for-profit higher education providers

- Private institutions: **for-profit** (US: Yale, Harvard, Stanford, Princeton, Columbia universities, MIT for provide a more recent development)
- Corporate universities
 - Disney university, Motorola university, General Electric's Leadership Program (from corporate human resources and training centers)
 - Private for-profit universities: university of Phoenix, Kaplan university, Ashford university, Liberty university, DeVry university (rely upon adjunct teaching staff, little research, vocationally oriented courses, just-in-time education tailored to industry needs)

10. The implications of global rankings systems for universities

- Times Higher Education (THE) World University Rankings, QS World University Rankings, Academic Ranking of World Universities (ARWU)

TABLE 10.3 ► WEIGHTED RANKING CRITERIA OF THREE GLOBAL UNIVERSITY RANKING SYSTEMS

Times Higher Education	QS Top Universities	ARWU
Teaching (30%)	Academic peer review (40%)	Education: alumni winning Nobel prizes and fields medals (10%)
Research: volume, income and reputation (30%)	Global employer review (10%)	Faculty: staff winning Nobel prizes and fields medals (20%)
Citations: research influence (30%)	Faculty: student ratio (20%)	Highly cited researchers in 21 categories (20%)
Industry income—innovation (2.5%)	Citations per faculty (20%)	Research: papers in nature and science (20%)
International outlook—students, staff and research (7.5%)	International faculty ratio (5%)	Papers cited in science or social science citation (20%)
	International student ratio (5%)	Per capita academic performance (10%)

Source: Barber, Donnelly and Rizvi 2013: 21

- Ranking systems as a key element in the globalization of universities
- The metrics used in such global university rankings tend to strongly favour long established elite universities, and tend to enhance their status and perpetuate their dominance.
- Best research capacity and low student:teacher ratios can come out on top

03: Evaluating New Media and Changes in Higher Education: The Five PS approaches

1. Practical Issues

- How can **digital media technologies** better facilitate the delivery of higher education, and what limitations arise for such technologically mediated teaching and learning?
- The death of the university (myths)
 - 1. The internet will kill off the university campus
 - Socialization, serendipitous learning, peer relations, building contact networks and engaging with lectures
 - 2000s, 'Eds and Meds' [education and medical institutes]: new sources of income, new skills, new jobs
 - 2. Online education costs less
 - Ignores the considerable fixed costs associated with developing the online content initially (upgrading, licensing softwares, bandwidth costs)
 - The matrix of costs and benefits is considerably more complex

TABLE 10.4 ► BENEFITS AND COSTS OF ONLINE DELIVERY OF HIGHER EDUCATION

	Benefits of online delivery	Costs of online delivery
Institutions	<ul style="list-style-type: none"> Ability to reach a wider range of students Greater flexibility in class scheduling Enables low-cost access to a wider range of resources Reduced costs of communicating with students 	<ul style="list-style-type: none"> Costs of acquiring appropriate software and computer hardware Need to train faculty and students in how to use new programs Need for upgrades and issues of incompatible technology
Faculty	<ul style="list-style-type: none"> Greater flexibility in how and when courses are delivered New modes of communication and interaction with students Ability to freely use available online resources as additional learning materials Ability to engage learning instructors and develop course delivery teams 	<ul style="list-style-type: none"> Challenges of ensuring that all students are engaged and motivated Challenges of learning new technologies and programs Work overload with student emails, questions and so on Difficulty in separating teaching and non-teaching times with 24/7 student access online
Students	<ul style="list-style-type: none"> Flexibility in how, when and where to participate in courses Ability to undertake self-paced learning Some student cohorts may prefer absence of formal classes and need to travel 	<ul style="list-style-type: none"> Need to have appropriate ICT infrastructure (computer, software, broadband access) Requires higher levels of self-motivation and time management Lack of face-to-face peer interaction may be a problem for some learners

Source: Lei and Gupta 2010

2. Personal Issues

- What motivates different **cohorts of students** to undertake higher education, and to what extent do such motivations align with new approaches to higher education content delivery?
- Diversification of the student cohort
 - Expansion of older students (traditional 18-25)
 - Part-time study or combining study with work
 - Increase in the number of women
 - Diverse in the ethnic and racial profile, international students
 - Children of working-class families, disabilities or disadvantages
 - Off-campus study: 5% in 1970, 15% in 2010, Australia
- Underlying motivations
 - Intrinsic motivations: for the joy gained from the activities themselves, need for autonomy, mastery
 - Extrinsic motivations: a means to an end, career, upgrading skills, better pay, greater job security
- New types of higher education provider in the learner-earner market segments (for-profit institutions)

3. Pedagogical Issues

- What aspects of **teaching and learning can be enhanced through new media**, and what aspects may not be best addressed through more technological mediation of teaching and learning?
- Large open universities: mega-universities, 100,000 enrolled students, 2012 worldwide
- New media technologies in the competing pressures: access, quality, cost → difficulty was in the quality [multi-platforms, multimedia, SNS...]
- **Reasons for the use of ICTs in higher education**
 - 1. Enhancing the quality of teaching and learning: need for a more learner centered approach
 - 2. Accommodating digital natives: risk of age-based stereotyping
 - 3. Increasing student access and flexibility: lifelong learners, industry professionals teaching
 - 4. Developing skills and competencies for the twenty-first century: ICT and digital literacy skills
 - 5. Improving the cost-effectiveness of higher education: more effective use of the most experienced research professors (available time for teaching is constrained)
- **Blended learning approaches**: content delivery online, and peer group interaction in class
- Towards 'the creation of learning materials and knowledge construction by learners'

4. Policy Issues

- How are **governments** responding to these new developments, and what new issues have they raised for the sector?
- OECD 2008, main challenges for tertiary education
 - Balance between governmental steering and institutional autonomy
 - Long-term financial sustainability and efficient use of public funds
 - Strengthening the quality by developing quality assurance mechanisms
 - Ensuring quality of opportunities
 - Devising appropriate cost-sharing arrangements between taxpayer-funded and student-funded
 - Fostering both research excellence and relevance, building links with other researching, industry, government, wider community
 - Ensuring graduate labour market outcomes, work-oriented study
 - Internalization [growing themselves]

5. Philosophical Issues

- What do these changes mean for the experience of student learning, and for the standing of the contemporary university in the wider society?
- Into big businesses
- Critics on that 'leaders will be developed who are superior to other people'

Conclusion

- **Digital humanity:** critical scholarship in the humanities and social sciences → not simply about using computers for traditional HASS, but also, how computational logic and computational techniques have profound effects on all aspects of the disciplines