Open Research Online

The Open University's repository of research publications
and other research outputs

Higher Education and Development: Tackling 21st Century Challenges: Conference report (WP1331)

Conference or Workshop Item

oro.open.ac.uk

Image: Robert Churchill

Conference report

Higher education and development: Tackling 21st century challenges

Monday 23 – Wednesday 25 June 2014 | WP1331

Conference report

Higher education and development: tackling 21st century challenges

Monday 23 – Wednesday 25 June 2014 | WP1331

Executive summary

The key objective of this forum was to develop a clear vision of what Higher Education (HE) should deliver for developing countries in the 21st century and to identify and articulate strategies for realising that vision.

The forum provided a unique opportunity for essential and compelling debate, attended by high profile innovators, policy-makers, leaders within business and education and researchers from within the UK and across developing nations.

Discussions highlighted the fundamental necessity of coherent global and national policies to link access, education and employment in order to address a wide ranging, complex and inter-dependent set of challenges.

Participants agreed that education needs to be locally owned, relevant and highly adaptable whilst contributing to the achievement of international goals for development, and that 21st century universities must reach beyond bricks and mortar to enable greater access for a wider group of students, whilst remaining adaptive and affordable.

It is clear that wealth creation is directly linked to HE, in its broadest sense, but its realisation depends on complicated and symbiotic factors that require a systems approach involving a range of partnerships.

The forum outputs are summarised as a set of false dichotomies that stakeholders must address in order to achieve the portfolio education that most suits 21st century needs.

Introduction

1. Developing countries historically face a wide range of challenges relating to the sustainable expansion of access to higher education. Many of the most qualified academics have emigrated to universities in Europe and North America, leaving institutions with deteriorating infrastructure and very low numbers of qualified faculty members to teach and/or conduct or access research. These circumstances are further compounded by poor regulation and increasingly inefficient and, in some cases, corrupt governance within institutions.

2. In addition to the requirement for academic quality in teaching and research, there is wide agreement that HE can only be successful if it is scaffolded by the prerequisite for access to adequate primary and secondary education, and that there must be equity of access regardless of wealth, race, gender, (dis)ability and other social signifiers.

3. The reconstitution of education development goals, away from the Millennium

Development Goal focus on primary, requires a paradigm shift in the way that policy-makers think of development. The provision of aid is not just about return on investment for individuals, but recognises and contributes to a drive for equity in the global system. Development goals across the sector are more likely to be met if the workforce is educated, building capacity to deliver better healthcare, education (at all levels) and environmental sustainability.

4. 21st century challenges require HE to provide knowledge, skills and qualifications to meet economic growth, and strong public and private sectors to provide meaningful high quality employment opportunities.

5. Population structures are changing and by 2020 the majority of the world's youth will be in developing countries. Industry and ecologies in the economics of these nations are becoming more advanced, requiring HE to match. However, education systems are simply not equipped to cope with demand for either volume or quality.

6. In the shift towards an international knowledge economy, every nation wants and competes for the best and most talented students and researchers. Globally it is the areas of lowest population growth and demand that see the best supply of high quality HE and vice versa. There needs to be a more equitable distribution of the benefits of HE, injecting diversity into global leadership and contributing to the link between effective governments and delivery of public services in an educated population. Graduates must be job creators and wealth creators.

7. This report addresses issues around the drivers for HE, challenges for equity, examples of innovation in the market and some of the context for national reform policy to support and regulate the appropriate growth of HE provision.

Educating a workforce

8. The complex issues around HE will not be solved simply by increasing access to a university education, as already indicated by the huge numbers of unemployed graduates across developing nations. The model of building more institutions is not working, just as it has not worked in the USA where there are also thousands of both unfilled vacancies and unemployed graduates.

9. Mass unemployment contributes to social affray and will not lead to sustainable development. The quantity and quality of graduates must be matched by the capacity of a country's economy to absorb them, which is a challenge in nations beset by war, instability and/or humanitarian disasters.

10. It was noted that HE students often have an inflated sense of entitlement, with expectations far from the reality of the world they will encounter post-education. Many recent graduates, it is suggested, have neither a grasp of their subject nor the generic problem-solving skills that would enable them to learn quickly on the job. Stakeholders cite a stigma around acquiring skills and becoming a 'worker', which can only be addressed by a change in mindset towards vocational and technical training. There is further conjecture that HE graduates view many professional and appropriate roles as beneath their dignity, as well as being genuinely overqualified for other positions. It is important for people to be aware of realistic income potential at all levels and types of education.

11. Where access to HE is already growing, many students entering the system are not equipped and competent for admission. Undergraduates often lack the basic academic skills to make the transition to studying at higher level, and too few undergraduates have studied the prerequisites for subjects that industry requires at tertiary level. Whilst peripheral to this forum, it is important to note that conversations around national curriculum at secondary level should contribute to the debate. In many countries HE institutions allocate their own resources to address secondary inadequacies by providing targeted pathway and/or remedial programmes.

12. A global economy values not just what people know but what they can do. The landscape of work is seeing a huge shift from need for content to need for skills. Ten years ago a student of computer science would have learned to programme a PC, not a mobile or tablet device. Advances in technology mean that industrial landscapes are changing more rapidly than ever before, suggesting that models that will work in the future will be for universities to provide students with a blend of both content and the adaptive, knowledge-age skills that are needed in order to rapidly acquire and use knowledge. For example:

- Teamwork

- Communication

- Critical thinking

- Problem-solving

- Ethical behaviour

- Analytical ability

- Ability to work across cultures

- Ability to apply a concept or framework across paradigms

13. The challenge is to empower young people for jobs, leadership roles and entrepreneurship opportunities that don't yet exist. Students are required to become lifelong learners, and continuing professional development will have a key role in supporting a holistic approach to education.

14. There is a lack of career information going into universities about requirements for industry and a lack of appropriate, realistic career guidance for students. Industry and educational practitioners need to find new ways of working together and of linking HE with tertiary and vocational education. An agreed suggestion for moving towards a more inclusive practice is for universities to work with industry to provide really strong case studies. Wider support systems in universities need to be more robust in helping students represent themselves well in the marketplace.

Engaging with industry

15. Tullow Oil Plc are a frontier explorer in the oil industry, focusing activity in countries that have little legal/fiscal regulatory framework for industry or the skillsbase to support it. The company often struggles to employ staff with even basic literacy and numeracy skills, and prospective employees are particularly challenged by the industry specific requirements for maths, science and technology. Tullow provides scholarships to top African universities, returning them with 'excellent graduates' for management roles, and uses a range of approaches to support staff at other levels, for example in Ghana they have a technical college delivering small focused courses to provide continuous learning.

16. Tullow are improving how they identify current and future skills requirements and how they communicate them, and hope to build on this by working more closely with providers on HE design and flexible open and distance learning, including more work-based learning.

17. In countries that have recently discovered oil and gas there is a case for the government to demonstrate strong leadership by establishing a skills taskforce to address the long-term provision of skilled workers. This is not a change that can happen overnight, rather one that requires a sustained multi-decade effort.

18. Financial systems, management, software and creative industries and others create direct and indirect, formal and informal employment for millions of people and advocate a range of engagement programmes such as:

- helping set curriculum at school level,

- providing case studies into universities as teaching resources,

- encouraging supervised internships,

- supporting employees to teach as volunteers,

- accelerating skills-based training and

- providing live, real market problems as competitions and challenges for students to work on.

19. Organisations have seen most success with universities that have invited and supported them to establish and build their brand, raising awareness and profile among students. All stakeholders – governments, HE institutions and industry organisations - at all levels need to develop their accessibility to engage with each other to value what is on offer/available and to propose, build and learn from projects like these. There is enormous scope for innovation and partnership between industry and education, as evidenced by the Lagos State Electricity Board and its innovative partnership with the Lagos Energy Academy.

20. Governments need to recognise that industry has no responsibility to contribute to development goals, and is accountable to shareholders. Governments could provide tax breaks for companies willing to work with them to support research and development in their countries, contributing to the national economy and employment generation as well as building sustainable capacity of skilled workers in a focused region of operation.

What should a 21st century university provide?

21. Education is often talked about in terms of exclusivity, suggesting that the harder it is to get into an institution, the better that institution must be. If quality is always defined this way then it presents a very difficult model to scale. Universities of the future need to define new models to help them reach more students, provide better returns on investment and reframe what it means to receive a quality tertiary education.

22. There is a need to challenge the regulatory bodies who have power in this space, particularly to differentiate between the role to fund, the role to establish and accredit standards and benchmarking, and the role to enhance capacity in curriculum development. Institutions of HE should be accountable for the services they deliver and open to more scrutiny in their work. Private investors should recognise that HE takes a long time for returns. It is essential that the for-profit approach is moderated by the value in creating stable and empowered societies for education advancement.

23. One model that provides the reach for higher education is Open and Distance Learning (ODL). Countries that are just beginning to develop scale provision of ODL risk prioritising economic benefit at the very real cost of a quality student experience. It is important to understand the potential of ODL as seen through a lens of quality and relevance.

24. ODL should be considered independently of Massively Open Online Courses (MOOCs), which so far demonstrate almost universally poor completion rates. Online courses should not be remote from context and must be developed in local partnership. Sustainable strategies that take a blended approach are needed in order to strengthen quality. For the private sector this is about benefit for all partners (including those that provide practicum); for students it is about adequate support, changing the practices and pedagogy of faculty staff away from traditional notions of what it means to be an academic.

25. Current degree courses take three years and are expensive. Many students spend holiday periods working in order to pay their fees and living costs. Young people want

to earn money; to 'earn and learn, and learn to earn', a position that can be well supported by ODL.

26. Open Educational Resources (OER) have a place in increasing access to HE, within both face-to-face and ODL models, but raise questions around the emphasis between learning, as focused on the learner, and education as focused on the institution. Education is usually delivered within a regulatory framework, for which OER may not provide appropriate curriculum. If the model moves to one of portfolio, there must be authority and accountability over the canon of content and how this is built and represented. As with every model, it is important to note that each nation has its own issues to address and one size may not fit all.

27. Faculties in traditional universities are staff-led, perpetuating both good and bad practice in teaching. A model focused on faculty means that the institution requires students to take all their classes from the same professors, regardless of their skill as educators. In many developing countries there is a limited supply of high quality faculty academics remaining in national posts, as over decades many have left for better career opportunities elsewhere, contributing to a cycle of decline in quality.

28. The African Leadership Academy (ALA) draws on tradition without replicating it. Students meet to watch an online lecture together, provide peer tutoring and work on projects together. The Academy hopes to see 25 campuses around the continent, with 10000 students on each campus, living together to support true peer learning. Students will use technology to gain access to the best faculty staff from around the world, within a framework that includes a strong emphasis on African Studies, and put learning into practice with four months from each of the three years of their degree course spent working in industry.

29. In the ALA, the tradition of teaching and facilitating learning is continued through the use of technology and by local facilitators who provide inspiration and draw out learning. Students pay only for this teaching and not for the research activity of an institution, which would be funded separately. The Academy is supportive of students that can't pay up front for their education, anticipating that they will be catapulted into careers that will enable them to pay back on their education.

The role of research

30. The issue of research as an embedded activity within HE is underpinned by questions of relevance. Research could be defined as scholarship or it could be evidenced as transparency in learning and teaching: research as a practice for the discovery of new knowledge, and research in the practice of learning in order to inform teaching.

31. Research bodies including INASP and the Wellcome Trust have strong arguments for the support and value of evidence-based research, particularly in service of policy-making.

32. Creating quality research output requires institutional support and investment in governance, systems, libraries, leadership and credible research pathways. Graduates need the skills to understand and interpret research, and social norms and cultural values should enable an environment that allows and values research; for example in the UK every government department views evidence and research as a fundamental component of their decision-making processes.

33. Research has a key role to play in the changing role of universities, particularly in terms of its relevance to the private sector. Putting an information barrier between funders and researchers enables researchers to act without conflict of interest, although this may be less relevant when research is funded directly for industry. Improving local research environments could provide genuinely world-class research hubs in resource-poor settings, for example centred around diseases relevant to that region.

34. Measuring research impact is a challenge and it is difficult to demonstrate what is of

value over what time frame. The transfer of research findings is an important process and academics are not always skilled in communication. A coherent structure is needed to support academics in doing what they do well, maintaining the flow of their research, but also maximising the uptake value, interpretation and application of new knowledge and information.

35. Delinking research entirely from universities is seen as potentially high risk especially for lower quality institutions; establishing research institutions outside of the university framework has been attempted in India with limited success and there are lessons to be learned from this experience.

What are the questions for access?

36. Mobile phones have become near-ubiquitous across the developing world, and internet access continues to expand. Initiatives like the online Kahn Academy have shown huge innovation in technology for democratic education, providing free world-class learning for 10 million students a month. There is clearly a role for technology in engaging access to HE, but there also remains a digital divide for the very poorest in society, and/or those who live in areas of low internet saturation.

37. International collaboration in teaching, learning and research opens up possibilities for equitable access to education. However if those in authority do not actively promote access and support for the most marginalized in their societies then the elite will continue to dominate, perpetuating socioeconomic intergenerational inequalities. In many developing countries there is a growing market in private universities but these reach small numbers of wealthy students. The challenge remains to provide affordable education at scale, a difficult quality to measure in the context of extreme poverty.

38. There is a global expansion in access to education generally, but still many challenges for underprivileged groups, for example in countries such as Ethiopia and Nigeria the statistics show that there are 35 women to every 100 men in HE. Education could and should be the greatest force for equalizing society.

39. Women are often lost at secondary level, where enrolment figures are high but completion is not. The Global Fund for Women finds that women's access to HE is restricted for a range of reasons, often around sexual and reproductive health and rights as well as fundamentalism, religious and cultural practice and finance (as the education of boys is usually prioritised where funds are limited). This inequality means that for many women completion of their education becomes a choice between schooling and family. Those that do persevere can suffer teasing, bullying and belittling behaviour not just from other students but from the professors who are their teachers.

40. Institutions of HE need to work with communities, social movements and civil societies so that HE is at the frontier of social change. Funding should address the social norms and practices that hold women back, and activity to support women should be holistic and sustainable – horizontal rather than vertical or 'boutique' solutions. Research has shown that change is driven by women asking for their own rights, and HE has a responsibility to educate and empower them to do so.

41. Similar arguments can be made for disabled students. For any good access programmes to work at scale there needs to be significant investment up front so that the cost per student becomes viable. It is difficult to pilot such activity, for example to provide for 5 disabled students without providing for an entire disabled population. There is a role for governments, as the lead entity to bring scale and exclusivity within a country, to learn from the boutique solutions and roll them out nationally.

42. Concerns about language also inform discussions of access. Language is a huge barrier for diversification, especially in developing nations, which often have large numbers of regional languages and dialects. The common benchmark is English, but studying a complex subject in a second (or often third or fourth) language can offer big challenges for confidence and the abilities of students to interact with and within an

institution.

43. The Lahore University of Management Sciences (LUMS) is developing diverse student bodies, within a national programme of HE reform in Pakistan. The core challenges have been: Faculty development; improving access and learning; excellence in research and relevance to national priorities. Further support was needed in quality assurance (for standards, assessment and accreditation), governance and management and infrastructure development. Incentives were offered for outreach for teaching and learning and for quality in research, bringing in talent from over 40 cities across the nation and dramatically increasing Pakistan's share of global research output.

44. LUMS provides women with security and transport, enabling them to physically access their education, and offers both academic and psychological counselling for all students on campus. The HE student body has become significantly more diverse, with students from low socioeconomic backgrounds including/and women increasingly well represented. Some of the greatest resistance to enhancing diversity and access to HE in Pakistan has come from faculty, who have very low expectations of students from certain backgrounds. LUMS has chosen to set the quality standard and provide students with the challenge, with overwhelmingly positive results.

Innovations in teaching and learning at HE

45. An Indian government initiative attempted to establish 20 special 'innovation universities' without success, underscoring the notion that innovation should be something that cuts across all that universities do. There is a need for societies to take risks and to accept failure as part of the process, a perspective that should be promoted and recognised by governments; international collaborations can help for a period but ultimately there needs to be national capacity. Innovation always carries risk and governments are traditionally nervous about risk, presenting a set of challenges around how to support something that has potential to go very right or very wrong.

46. Pearson is an organisation with roots in traditional publishing that has moved heavily into digital publication and technology services, working with a number of governments to meet key challenges around cost and quality of HE provision. They recognise that technology is having impact around the world, and it is important to position technological innovation in the service of learning objectives as opposed to leading them. Appropriate use of technology affords the engagement of learners, providing accessibility, inclusivity and powerful data that gives feedback to students, teachers and other stakeholders. Pearson increasingly see their role as partnering with universities and governments to reach new goals and learner objectives.

47. The apparent dichotomy of quality and scale is rejected by The Open University UK (OU), who currently teach around 240,000 students in the UK. The OU is like any other university, but uses ODL to deliver its mission of being open to people, places, methods and ideas. OU teaching has been research-informed from the beginning, and the OU story is about understanding context and enhancing capacity working in partnership, using ODL materials and modalities appropriate for context. The need for support is paramount for ODL, where motivation for learners is critical. Delivery of OU courses requires significant, sustainable innovation, and the capacity and resource required to provide one tutor per 15-20 students around the country cannot be underestimated.

48. OU graduates are well-respected in the job market. A degree with the OU costs under 60% of a similar degree from a comparable, traditional institution in the UK. The model exemplifies that it is possible for an ODL institution to gain the respect of industry partners and other universities within a nation if established and delivered in a way that ensures quality.

49. Spire is a company that offers a perspective on rapid innovation, working in Kenya to create an incubation hub for addressing the education to employment gap. Spire works

with employers to prepare and provide entry-level talent with the skills to contribute from the outset of their employment; and with existing employees to give them the skills they need to become leaders, while improving retention and performance. Standards and expectations in the classroom environment are set high and students are encouraged to accept failure as an inevitable aspect of learning. The organisation manifests this belief in their approach to innovation, for which they advocate two requisites: speed, and learning quickly from small tests.

50. Spire moves rapidly, proposing new methods, developing and trying them out and then absorbing and scaling the lessons from the experience. This includes their exploration of new models of revenue, for example in trying to blend revenue from students and employers, and offering a loan programme independent of that owned by the Kenyan government in order to expand access for students.

51. A key practical issue around innovation is how policy-makers should be dynamic enough to change and challenge sufficiently quickly, especially where evidence of impact is low. There was notable consensus in the forum for the need to work with existing structures and institutions to deliver innovation, and a need to identify where change is likely to have locus in existing institutions.

52. Innovation, qualification and affordability are challenges that are as relevant in Asia as they are in Africa. India currently has 800 million people under the age of 35, presenting an extraordinary challenge for their HE system and leading rapidly to a consensus that the Indian HE system needs reform both for quality and to create a more versatile and diverse provision. Both individual and corporate philanthropic funders have relevance to sit alongside governments, and this contribution could be increased by a more welcoming regulatory framework.

Experiences of national reform

53. Many developing nations have introduced national reform programmes in order to overhaul their HE provision.

54. In Ghana, the government is the key funder for HE. In spite of this financial position they have stepped back to allow much greater autonomy for institutions, for example no longer appointing VCs or Deans. Ghanaian success in achieving MDG2 has led to a major increase in students leaving secondary education and seeking admission to HE. The government is increasing access for girls and women and students from areas that indicators describe as deprived. A major strategy for responding to challenges has been collaboration and dialogue with students, parents, new graduates and other stakeholders. Initiatives in distance learning and blended and flexible programmes for workers are building on existing university provision to expand access. The major challenge remains unemployed graduates.

55. Ethiopia sees HE as a major contributor to its target to become middle income by 2025 and is committing significant resources to the expansion of HE provision, as it has done for the last two decades. The government are prioritising quality of education and training, HE academic staff and management capacity building, ICT for education, development and leadership and good governance. The challenges for access and success are quality and relevance, equity and diversification, governance and management, and financing and sustainability. In order to address the challenges, HE development and reform is at the forefront of the development agenda. Ethiopia emphasises the value of cooperation and collaboration between nations.

56. Tanzania is similarly addressing key development constraints, including the need to build a skilled workforce, in its own efforts to transform from low to middle income status by 2025. Education features prominently in the government plan as a core ingredient of its strategy for socioeconomic transformation. Current concerns around declining quality and poor learning outcomes are bolstered by a general trend of strong progress in expanding access to education. The government privileges the value of data to monitor and evaluate the advancement of their plans, and sees the need for a

paradigm shift in HE from content mastery to quality knowledge production.

57. Key reforms in Kenya have stemmed from changes in policy and legal frameworks for HE, and the government continues to drive forward new reforms. A participatory approach to transformation includes stakeholders such as the general public, private investors, civil society and trade unions, parliamentarians, industry and regulatory bodies and students. Society has demonstrated significant appetite for university education, challenging the government to provide high quality that is also relevant, affordable and accessible against a backdrop of limited government resources. Systemic, institutional, economic, social and politic factors have combined to force university reform.

58. Myanmar has recognised a need to develop to international standards in order to provide its graduates with a competitive education. Education reforms are essential at this stage in the country's development. Universities are currently positioned under each ministry according to their specialism (e.g. University of Medicine under Ministry of Health) but will shortly become autonomous and depoliticised, with the freedom and authority to seek international collaborations. The government is asking universities to benchmark against world ranking criteria, a move that is applauded by the international community, and facing reluctance from institutions that don't want to consolidate and/or accept change. 18 working groups for policy and action plans are drafting new education law, and reform law is paving the way for the new higher education laws to be passed.

Conclusions and recommendations

The key challenges facing higher education in the 21st century are complex and interwoven, beset with false dichotomies:

Global/local

Education needs to be locally owned, relevant and adaptable whilst contributing to the achievement of global goals for development.

Quality/scale

It is possible to achieve excellent quality at huge scale through the use of ODL, but only when adequately resourced and sustainably supported, a requisition that is easy to underestimate.

Knowledge/skills

HE was not designed for skills for employment. Policy-makers must identify the right balance for students between learning content and gaining transferable, knowledge-age skills.

Governments should work with partners in industry to link skills, qualifications and employment, developing an education system that has an affordable mix of investment in topic areas.

Research/teaching

Universities need to find a route that continues to support research in a way that brings meaningful value to their own practice and to the communities in which they engage.

Regulation/innovation

Governments and policy-makers must de-politicise university regulation and actively structure it in a way that enables and encourages innovation whilst safeguarding quality.

Equity/cost

Universities must exploit the opportunities for technology that reach beyond bricks and mortar institutions and enable greater access for a wider group of students, whilst

remaining adaptive and affordable.

There is a huge opportunity and willingness for international collaboration, to learn from what has worked and what has not worked and bring out a hybrid of the best approaches in the universities of the future. The challenge within this opportunity is to find an achievable level, rate and pace of expansion that works for all.

The vision for HE in the 21st century arises as one where a patchwork education will be required and offered. Education has to be transformed and personalised, enabling stakeholders to build achievement in a framework that works for both the individual and the nation.

Anna Peachey, The Open University
Wilton Park | September 2014

Wilton Park reports are brief summaries of the main points and conclusions of a conference. The reports reflect rapporteurs' personal interpretations of the proceedings – as such they do not constitute any institutional policy of Wilton Park nor do they necessarily represent the views of the rapporteur.

Should you wish to read other Wilton Park reports, or participate in upcoming Wilton Park conferences, please consult our website www.wiltonpark.org.uk

To receive our e-newsletter and latest updates on conferences subscribe to https://www.wiltonpark.org.uk/newsletter/