



Higher Education Management and Policy

**JOURNAL OF THE PROGRAMME
ON INSTITUTIONAL MANAGEMENT
IN HIGHER EDUCATION**



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Higher Education Management and Policy

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Professor Vin Massaro
Professorial Fellow
LH Martin Institute for Higher Education Leadership and Management
Melbourne Graduate School of Education, The University of Melbourne
153 Barry Street
Carlton, Victoria 3010, Australia
E-mail contact: jill.gaston@oecd.org

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Note to Readers

This issue of *Higher Education Management and Policy* is the first under the editorship of Professor Vin Massaro. Vin is Professorial Fellow at the LH Martin Institute for Higher Education Leadership and Management, The University of Melbourne. He has considerable experience in senior educational management in universities and government, and as a consultant and advisor in Australia and internationally. He has also been chairman and a member of several company boards.

Vin's research interests are in higher education policy and management, with particular emphasis on quality assurance and governance, and he has published widely on these subjects.

As chair of the Editorial Advisory Group, and on behalf of the IMHE Governing Board, I thank Professor Michael Shattock for his excellent work as editor for the past eight years. During that time *Higher Education Management and Policy* has grown in strength and reputation. The range and quality of articles bear witness to Mike's wide knowledge of, and practical commitment to, improving governance and management in higher education. Mike will continue to serve as a member of the Editorial Advisory Group.

Elaine El-Khawas
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The Programme on Institutional Management in Higher Education (IMHE) is a membership forum serving policy makers in national and regional authorities, managers of higher education institutions, and researchers. IMHE provides strategic analysis and advice on institutional leadership, management, research and innovation in a global knowledge economy, and reform and governance in higher education.

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A Faustian Bargain? Institutional Responses to National and International Rankings

by

Peter W.A. West

University of Strathclyde, United Kingdom

In the highly competitive international world of learning, universities make full use of favourable league table positions to strengthen their reputations. Yet are they, in so doing, entering into a Faustian bargain in which the long-term cost outweighs the short-term gain? Success in league tables comes at a cost in terms of accepting the orthodoxies of others instead of pursuing particular institutional missions linked to the particular priorities of the local community.

Based on recent surveys of institutional experience and on a new analysis of the impact of league tables on English higher education, this paper argues that if, as seems likely, rankings are here to stay, the shortcomings of the present approach must be acknowledged and addressed.

L'exploitation des classements nationaux et internationaux par les établissements d'enseignement supérieur : un pacte avec le diable ?

par

Peter W.A. West
Université de Strathclyde, Écosse

Face à l'internationalisation du secteur éducatif, désormais hautement concurrentiel, les universités exploitent au maximum leur place dans les classements internationaux en vue d'accroître leur prestige. Mais cette stratégie ne revient-elle pas à conclure un pacte avec le diable, dont les coûts à long terme sont en réalité bien supérieurs aux avantages immédiats ? L'université qui choisit d'asseoir sa réputation sur ces classements accepte en effet, implicitement, de se plier aux règles fixées par ceux qu'elle cherche à émuler, au lieu de concentrer ses efforts sur certaines missions spécifiques, plus en adéquation avec les besoins particuliers de la communauté locale.

À la lumière de sondages récents menés auprès des établissements, et d'une nouvelle analyse de l'impact des classements sur le système d'enseignement supérieur britannique, ce rapport suggère que si la pratique des classements persiste – et c'est fort probable – le secteur n'aura d'autre choix que d'identifier leurs insuffisances et anomalies pour y apporter les améliorations nécessaires.

The context

The evidence of the impact of rankings on higher education across the world is not hard to find. A single issue of *THES*, the *Times Higher Education Supplement*, contains an advertisement for the University of Auckland, which describes itself as a “top 50 University in a top 5 City” (Times Higher Education, 2008). Similarly, the University of Sydney is “rated as one of the top 40 universities across the globe” whilst Imperial College London is “ranked 5th best in the world by *THES*”. An analysis of higher education in Ireland includes some key statistics, led by the point that two of its universities are in the world rankings. The City University of Hong Kong’s growing international reputation is “evidenced by its surge up the *THES* rankings”.

Potential students looking at the websites of Scottish universities may be confused to learn that Robert Gordon University in Aberdeen is the “Best Modern University in the UK” and that Napier University in Edinburgh is the “top Modern University in Scotland”. Both statements are correct and relate to the latest tables, for 2009. The difference is that the first is from the *Times Good University Guide*, the second from the *Guardian University Guide*.

Such use of tables to validate reputation is scarcely surprising, but there are also signs in the same edition of the deeper strategic impact that league tables are having. In Australia, Canberra and Charles Stuart Universities are discussing linking up, and Stephen Parker, Canberra’s Vice-Chancellor, is quoted as saying “the system approach or even full mergers, may be the answer to propelling one Australian University into the top 20 ... If you add Melbourne and Monash you would almost get to the level of Tokyo University”. In Saudi Arabia, the King Abdullah University of Science and Technology is a GBP 5 billion new university, based on a virtual network of research with selected institutions with the over-riding aim of creating a “world-class university”.

The tables are even shaping attitudes and policies at the highest levels of government. Addressing the first meeting of the European Commission’s University/Industry Forum in Brussels in February 2008, the Commissioner, Jan Figel, asked why Europe could not be as globally successful in higher education as it was in football. His assumption, echoed in several other recent pronouncements from the European Commission, was that the league tables showed that Europe institutions were, with a few exceptions, falling behind globally. It is widely recognised that league tables pose problems for institutional

morale. Now, it would seem, they are beginning to pose a problem for the morale of institutions across a whole continent, Europe.

Many of the tables are associated with particular newspapers which have to find a way of generating public interest. The result is headlines about big changes year on year which, if downward, are particularly damaging for morale. One British table even has a “university of the year”, invariably different from the previous year. Yet in practice nothing much changes in a university in a single year, other than the graduation of a single cohort of students. Changes from year to year are more likely to be the result of modifications in methodology or normal perturbations in the data than a variation in the institution’s quality of performance. Potential students need to understand this, but there is little incentive at present, particularly for those institutions which have apparently risen, to point this out.

Rigorous analysis of the methodology of the league tables compilers has raised increasing doubt about whether the present rankings are a sufficiently robust basis for sweeping conclusions such as Commissioner Figel’s. The Centre for Higher Education Research and Information produced in April 2008 for the Higher Education Funding Council for England (HEFCE) a comprehensive report on the tables and their impact on higher education institutions in England with the intriguing title “Counting What Is Measured or Measuring What Counts?” (HEFCE, 2008). It revealed that the two most widely used international league tables, Shanghai Jiao-Tong and the *THES*, are each based on six indicators of which only one (articles cited) is common to both. Yet, mysteriously, they come to broadly similar conclusions. The same pattern emerges, as we will see, in the British league tables.

Rankings tend to re-enforce existing reputations and, as Marginson and Van der Wende (2007) have pointed out in respect to Shanghai Jiao-Tong, favour English-speaking, research intensive, sizeable institutions with strength in the sciences. They have an even more worrying longer term impact of incentivising institutions to turn away from diverse missions, linked to local and national social goals, towards the orthodoxy that will ensure success in the global rankings.

Faced with such damaging facts, it might be tempting to dismiss the whole attempt to arrive at an objective means of measuring the relative performance of institutions. It is, however, now hard to imagine higher education without league tables. They are valued by external stakeholders, including governors, employers and potential students, and, as Hazelkorn (2007) noted, by 57% of institutional respondents who found them useful to build reputation and help development.

The United Kingdom as a case study

League tables started earlier and have developed further in the United Kingdom than elsewhere on the continent, and they now represent a fertile ground for identifying both strengths and weaknesses.

It can be argued that this particular disease is self-induced. In 1986, there was widespread support for the introduction of what is now the Research Assessment Exercise (RAE), which assesses the quality of the output of every research-active member of the academic staff of a British university. From the outset, it generated tables of performance which were widely used by universities for boosting their reputation and for tackling areas of under-performance. They were the most powerful tool ever provided to university management teams since their peer-reviewed basis meant change could no longer be resisted on the grounds that the management clearly knew nothing about the particular discipline under review. The RAE outcome is still the biggest single element in at least one of the British league tables, showing a clear line of progression.

No one in 1986, however, could have foreseen the consequences in terms of rankings. There are now three major sets of British league tables, in addition to the two sets of world tables. The HEFCE study analysed all five.

The Times and *Guardian* both warn that it is not possible to replicate the overall scores from the published figures in their league tables, and the Shanghai Jiao-Tong tables have been criticised for being irreproducible (Florian, 2007). Such issues are unsurprising when, as the HEFCE study does, you look behind the published table to the different aims of the different tables.

The Sunday Times sets out to guide potential applicants. It believes that the two most important factors in enjoying university are the quality of teaching and the quality of the other students, as judged by their entry qualifications. Those two factors are accordingly heavily weighted. No subject tables are produced, only an institutional rating.

The Times and *Good University Guide* are consumer products aimed at existing readers, especially the parents of applicants. It is part of a general aim of the paper to be “the champion of middle class consumers”. Research is included as it is held to attract funding and better staff and thus improves teaching. There are subject tables in addition to an institutional ranking.

The *Guardian* league tables have been developed solely to inform prospective students. It, too, has subject tables.

All the tables give almost equal weight to the views of students, as expressed in the annual National Student Survey, but this is the only point of convergence. The *Sunday Times* is alone in including the outcome of a survey of the opinion of selected head teachers and of the reviews carried out as part of the programme for assessing the quality of teaching. It gives a heavy

weighting to entry standards, 23% as compared with 17% and 11% for the other two. The *Guardian* gives a 17% weighting to the “value added” by a university, arrived at by comparing the quality of the entry with the quality of the degrees obtained, but the other two ignore this altogether. Likewise, the *Guardian* pays no attention to the quality of research, as measured by the Research Assessment Exercise, whilst the other two give it a weighting of 17% and 18% respectively.

In view of these substantial differences in data input and weightings, it is more than a little surprising that six institutions (Imperial College London, the London School of Economics and Political Science, University College London, Cambridge, Oxford and Warwick) have appeared in the top 10 of every British table since their inception. In 2008, the compilers of one of these tables discovered that the data provided independently by the Higher Education Statistical Agency showed that Strathclyde University had the third highest standard of entry after Oxford and Cambridge. The figures were challenged and validated. The compiler, however, simply refused to accept them because they were, in his mind, counter-intuitive and, in the end, this particular indicator was simply deleted. It does appear that intuition plays a part in ensuring that the tables re-enforce the status quo.

The HEFCE study concludes that, in general, “the measures used by the compilers are largely determined by the data available rather than by a clear and coherent concept of excellence”. Whilst this data is sufficient to measure inputs, such as entry standards, and outputs, such as completion rates, it is inadequate to measure processes such as the quality of teaching other than by using inappropriate proxies such as student: staff ratios. Many smaller, specialised institutions are omitted altogether. In general, the rankings as the HEFCE report puts it “largely reflect reputational factors and not necessarily the quality of institutional performance”.

Whatever the short-comings of the rankings, however, it is increasingly difficult for British universities to ignore them. In 1993, my own university, Strathclyde in Glasgow, decided to merge with Scotland’s leading teacher-training college, Jordanhill. Scottish public policy at the time was that teacher training was best carried out within an established university rather than in a mono-technic college and the merger seemed to fit well with the university’s mission to be “a place of useful learning”. Research in the college was, however, a minority activity and the direct result of the merger was to move the university down about ten places in the UK league tables from a respectable 30th to a much less respectable 40th. For some years this seemed to be a price worth paying but the reputational impact of the league tables in the United Kingdom has grown with the passing years. Finally, in 2006, it was decided to move the faculty from its campus on the other side of the city to the main campus in the city centre, to restructure it and integrate it much more closely into the

mainstream of the university, to bring in new leadership and to invest in its areas of excellence. An advance in the league table position is an explicit aim of the overall excellence agenda of which the Jordanhill development is a part.

International tables

The HEFCE analysis of the *THES* and Shanghai Jiao-Tong world university rankings shows a similar pattern with, as has already been noted, only articles cited in common. The elements are as follows:

Table 1. **World rankings**

	THES-SQ %	SJTU/ARWU %
Student:staff ratio	20	
Recruiter survey	10	
Peer survey	40	
International staff	5	
International students	5	
Nobel laureates (staff)		20
Nobel laureates (alumni)		10
Highly cited researchers		20
Articles published		20
Articles cited	20	20
Size		10
<i>Total</i>	<i>100</i>	<i>100</i>

Orthodoxy

As we have seen, success in the rankings is secured by conforming to the compilers' idea of excellence, which in world table terms is largely dominated by research. When institutions themselves are asked what they regard as important, however, a different picture emerges. The HEFCE study tested the views of 91 English institutions and found that in their view the five most important indicators were i) graduate job prospects; ii) the opinion of students, as expressed in the National Student Survey; iii) completion rate; iv) retention rates and v) value added. Within the research intensive universities, there was greater emphasis on vi) RAE outcome, vii) research income and viii) Ph.D degrees awarded. None of these eight indicators features in either the *THES* or Shanghai Jiao-Tong world rankings.

A further survey, carried out for the CEIHE II project, which is seeking to establish a classification of European institutions, reached 70 institutions across the European Union in 2008 and found that the key factors in their view in defining an institution's profile were type of degree; range of subjects taught; research intensiveness; and international orientation of teaching and staff. Again, none of them feature in either of the two sets of world rankings.

So we may conclude that if an institution follows the priorities of the world rankings, in order to enhance its standing and reputation, it is going against the general view within higher education of what matters.

Social and political priorities

A survey of politicians and regional economic development agencies would also, in all likelihood, produce a different set of priorities. Increasing participation amongst disadvantaged socio-economic groups, community engagement and provision of socially valued subjects are all widely viewed as important yet receive no credit in the rankings. The HEFCE study found that most of its case study institutions stated there was tension between greater access by lowering entry standards, selectively, and raising them for reputational purposes. Commercialisation and launching spin-out companies, too, get local political recognition but no league table reward.

As the recent IMHE study (OECD, 2007) of higher education and regions found, higher education institutions must, in order to be able to play their regional role, do more than simply educate and research – they must engage with others in their regions, provide opportunities for lifelong learning, and contribute to the development of knowledge-intensive jobs which will enable graduates to find local employment and remain in their communities. Such engagement has implications for all aspects of these institutions' activities – teaching, research and service to the community – and for the policy and regulatory framework in which they operate.

World rankings assume that societies across the world have similar expectations of their higher education institutions. Yet, particularly across Europe as regions grow stronger, universities will ignore the “Third Task” at their peril, whatever the impact on league tables.

Diversity

The CEIHE II project aims to map the rich diversity of institutions of higher education in Europe. In this it is working in parallel with the long-established Carnegie classification in the United States. Compilers of world rankings have, however, always been resistant to ranking institutions in separate categories, preferring the view that since all universities compete in the same global market they should be ranked in the same league tables.

Within British higher education, the assumption ever since the abolition of the binary division between universities and polytechnics in 1992 has been that all universities will conform to a similar pattern of teaching and research and that a process of evolution will in due time eradicate the former distinction. Accepting diversity would, it is argued, consolidate divisions. Elsewhere in Europe, however, there is now a growing acceptance that there are different

categories of institutions and that the American system does not seem to have suffered in any way from recognising this.

Strathclyde University is an example of one that does not conform to the orthodoxy of the league tables. Strong in Engineering and Business, commercialisation and entrepreneurship but with no medical school it would be happy to be judged against other European technological universities and even against MIT. The pressure of league tables, however, pushes it in another direction entirely, towards conformity.

Improvements

How, then, can league tables be reformed to measure what really counts? There are, fortunately, a number of models available which hold out the promise of improvement. The German CHE (Centre for Higher Education Development) system has an interactive facility which allows different users, whether potential students or industrial partners, to manipulate the data to reflect their own priorities rather than those of invisible compilers. The OECD's AHELO initiative, which will involve IMHE, to assess higher education learning outcomes should produce a powerful objective tool for international comparisons. The CEIHE II study will, it is hoped, lead to an agreed classification system which when applied to league tables will at last allow like to be compared with like. In the same spirit, we can adopt more widely the *Good University Guide/Guardian* approach of subject-based tables, which are already well developed in the case of the world's business schools, rather than persisting in the flawed approach that a mass of individual strengths and weaknesses can somehow be aggregated into a single institutional ranking which has any stronger evidential basis than established reputation and the intuition of compilers.

Conclusion

The opening words of David Copperfield express quite well the dilemma posed for higher education institutions by the current league tables: "Whether I shall be the hero of my own life, or whether that station will be held by anybody else, these pages must show." Presently it is the compilers of league tables, rather than the institutions themselves, who are shaping strategies and public perceptions of performance. If universities are indeed to be locally engaged as well as globally competitive, they have to develop their own unique missions rather than giving priority to whatever will maximise the current league table position. Agreement on a new system of rankings will not be easy to achieve, but it is essential if the present Faustian bargain is to be replaced by an arrangement where reputation is not purchased at an unacceptable price in terms of the surrender of institutional autonomy.

The author:

Dr. Peter W.A. West
Secretary to the University
University of Strathclyde
McCance Building
16 Richmond Street
Glasgow G1 1XQ
United Kingdom
E-mail: p.west@strath.ac.uk

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“Standards Will Drop” – and Other Fears about the Equality Agenda in Higher Education¹

by

Chris Brink

Newcastle University, United Kingdom

I discuss, on the basis of experience in Australia, South Africa and the United Kingdom, some common fears and negative opinions about the equality agenda in higher education. These include:

- *“Standards will drop.”*
- *“Our reputation will suffer.”*
- *“It’s not our problem.”*
- *“It’s social engineering”*
- *“It’s unfair.”*
- *“It’s a waste of time.”*

La mort annoncée de l'excellence et autres craintes suscitées par les politiques d'enseignement supérieur axées sur l'équité²

par

Chris Brink

Université de Newcastle, Royaume-Uni

M'inspirant d'exemples australiens, sud-africains ou encore britanniques, j'analyse dans ce rapport certaines craintes et préjugés couramment exprimés concernant les politiques d'enseignement supérieur axées sur l'équité. En voici un florilège :

- « C'est la mort annoncée de l'excellence. »
- « Cela va nuire à notre réputation. »
- « Ce n'est pas notre problème. »
- « C'est un abus de confiance pur et simple. »
- « Équité rime avec injustice. »
- « C'est une perte de temps. »

As a relative newcomer to higher education in the United Kingdom, part of my learning curve has been the local manifestations of some universal themes. Discussions about the Research Assessment Exercise, commercialisation, fees, the skills gap and efforts at widening participation all sound familiar in outline, if not in detail. The debate about equality in higher education, in particular, has caught my attention, since this is a matter with which, in a different country and a different context, I have had some experience.

Much has been said and written about the case for equality. It might be of value to offer a few observations about the fears, doubts and anxieties that permeate the other side of the debate, even when these are not explicitly articulated as a case *against* equality, but manifest themselves rather as a lack of support. Moreover, it might be of value to do so in a comparative sense, juxtaposing what I experienced elsewhere with what I encounter in the United Kingdom. I acknowledge – indeed, I must stress – that my new context and circumstances are quite different from my immediate past. Nonetheless, the fundamental fears I encounter in the United Kingdom seem to me very similar to what I have heard elsewhere.

What is the equality agenda? The heart of the matter is a desire for equality of opportunity. The aim is that nobody who has the ability to go to university should lack the opportunity to do so, no matter what his or her circumstances are. The equality agenda is not a belief that nature has endowed us all with equal gifts. It accepts that not all individuals have equal intellectual ability, just as we do not all have equal physical, artistic or musical ability. Nor is the equality agenda an argument for engineering social uniformity. On the contrary, it starts from a premise of the value of social diversity, on somewhat the same grounds as we argue the case for biodiversity. Moreover, the equality agenda accepts that people find themselves in different circumstances – rich or poor, urban or rural, employed or unemployed. Of particular relevance are those circumstances beyond the choice or control of the individual: being born into an ethnic minority, being disabled or being mathematically gifted, for example. What the equality agenda does not accept is that the membership of an individual in any particular societal group is a determinant of the ability of that individual. The equality agenda holds that individuals of different abilities can be found in different societal groups and under different circumstances, and that the ability of the individual should not be impeded by any such factors.

Quite simply, then, the equality agenda is that ability should be able to access opportunity regardless of circumstance.

Why should we pursue an equality agenda? There are three broad categories of argument in favour of doing so. The first category contains arguments couched in terms of natural rights and social justice. These are founded on the idea that everybody has a right to education, that as a matter of social justice nobody should be disadvantaged in exercising that right and that under-representation in education of any societal group may be a sign of a systemic denial of such rights, in which case society has a moral obligation to intervene in order to rectify the matter. This kind of argument often arises in considering the participation of low-income groups against the background of fees. In the United Kingdom in the early 2000s, as was the case in Australia in the early 1990s, charging fees at university was a new phenomenon, which gave rise to much debate about the possibility of higher education being unfairly denied to those without the ability to pay.

A second set of arguments for widening participation is founded on the notion of redress. In South Africa after 1994, a strong driving force for increasing both the numbers and the ratio of participation of black students and staff has been to rectify the inequalities of the past, when apartheid policies restricted educational opportunities for black people. That is why, in South Africa, the equality agenda is often referred to as “corrective action”. Moreover, the societal groups at which the corrective action is aimed are not in the first instance defined by race, gender or locality, but in terms of history, and are collectively called “previously disadvantaged groups”.

A third set of reasons for equality refers not to rights but to utility, and not to the past but to the future. These are the arguments which say that if we only draw participants in higher education from certain sectors of society then we are missing an opportunity to optimise potential across the broad base of the population, and hence our exploitation of the human capital available to society would be sub-optimal. These arguments, too, have a strong appeal in South Africa, where about 80% of the population are African blacks. Where the target groups for widening participation form only a small part of the population, such as Aborigines and Torres Strait Islanders in Australia (about 2%), the optimisation argument has correspondingly less force.

To be clear, we should distinguish at the outset between *widening* participation and *increasing* participation. The idea of increasing participation is about numbers: the question is how many people, or what percentage of the entire population, experience higher education. In the United Kingdom, the government has set a target that 50% of young people aged 18-30 should have had some experience of higher education. The idea with widening participation, however, is not primarily about changing numbers, but about changing ratios. It

is about increasing the ratio of participation of certain identifiable societal groups who are considered to be under-represented in higher education. “Under-representation” is typically taken to mean that the percentage of participants in higher education from that societal group is less than the average rate of participation of the entire population, although it may sometimes be defined more specifically as being too low in comparison to certain other societal groups.

What exactly these societal groups are, and in what terms they are identified, would vary from place to place. In Australia, emphasis is placed on the under-representation of indigenous people, meaning people from Aboriginal or Torres Strait Islander descent. In South Africa after 1994, the emphasis has been on under-representation of black people compared to white people. In the United Kingdom, even though widening participation would officially include groups such as ethnic minorities, later learners and children in care, the debate around widening representation is firmly anchored in a discourse of class, with unblinking use of terminology such as “the lower socio-economic classes”.

The reasons given for the equality agenda often relate to the particularities of the groups of which we would like to raise the participation ratio, which in turn relate to societal circumstances, which means that the debate about widening participation is largely socially conditioned. Part of that social conditioning consists of the terminology and language we use in conducting our debates. Our language of discourse on equality will differ from place to place according to circumstances, culture and history. The legacy issues on race so central to the debate in South Africa, for example, only have a distant resemblance to talk of “ethnic minorities” in the United Kingdom, and the class discourse of the United Kingdom would be foreign in egalitarian Australia. Moreover, the language of discourse may change over time. In South Africa there was a shift in the terms of discourse about widening participation from the pre-1994 era to the post-1994 era. Pre-1994, the mainstay of the argument for widening participation was in terms of human rights. After 1994, once these rights became enshrined in the new constitution, the focus shifted from rights to redress, and over time I believe will shift again from redress to optimisation.

Language is important in this context because our thinking can be conditioned by our language of discourse, just as much as being expressed in it. Our habitual terminology, which is socially conditioned, will influence the reasons we give for engaging in widening participation, and consequently the actions we take. For example, an assumption of deprivation, coupled with a language of discourse based on terms such as “lower socio-economic classes”, will emphasise justification of widening participation in terms of the first category of reasons indicated above: those phrased in terms of rights and social justice. If you emphasise deprivation, you will be led to a discourse of victimhood and entitlement, rather than to the more neutral topic of optimising talent and

tapping potential. Likewise, our use of language is important in the discourse (sometimes *sotto voce*) about why we should not pursue the equality agenda – or at least why it might not quite get the kind of support its advocates think it should be getting. This discourse mostly has to do with fears that by engaging in the equality agenda something valuable will be lost, such as educational standards, institutional prestige, strategic focus or a slice of the budget.

That brings me to the topic of this paper. In discussing some of these fears, I will concentrate on issues relating to widening participation.

“Standards will drop.”

This is the most common and stereotypical fear concerning widening participation. Its basis is the observation that, almost by definition, the under-representation in higher education of some particular societal group correlates with the fact that people from that group do not meet university entry requirements to the same extent as the rest of the population. Consequently, admitting students from such groups into university – usually under some kind of special admission programme – has the effect that the average school-leaving results of the new cohort are lower than they would have been without such a programme. If “standards will drop” means nothing more than that – that relaxing entry criteria result in the average entry qualification going down – then the point may be readily conceded. But the fear factor is more than that. “Standards will drop” is usually code for a bigger claim, namely that the quality of education on offer will suffer as a consequence of widening participation.

The first point to note in response is that if talk is of standards, then it is necessary to distinguish entry standards from exit standards. By conflating these two, the fear that “standards will drop” extrapolates from an observed change in entry standards to a postulated change in exit standards, and from there to a conclusion that the quality of education will decline. But that does not follow – it depends on whether value-add measures are instituted for those who enter under a special admissions programme, and how effective these are.

In the mid-1990s, as Co-ordinator of Strategic Planning at the University of Cape Town, I developed the slogan “Flexible on access, firm on success”. We had a flexible admissions programme, aimed largely at black students disadvantaged by apartheid education, backed up by an Alternative Admissions Research Project. This flexible access was coupled with active support. We had a special unit called the Academic Support Programme, through which we offered options such as extra tutorials, walk-in consulting rooms, better staff-student ratios and extended degree programmes. My experience was that students admitted under the alternative admissions scheme, who successfully completed their degrees with the aid of such support schemes, were of equal exit standard

on graduation to students who had completed the standard programme. Moreover, far from the standard of education declining, I believe we actually learnt a great deal more about quality education by offering such programmes than we would have done in their absence. I realised at that time that the reward of teaching is not just in turning straight-A school-leavers into straight-A graduates, but also in turning weak starters into strong finishers.

There is by now solid evidence for the claim that sufficient value-add measures can result in students with lesser entry standards attaining perfectly acceptable exit standards. This is true even in very demanding environments such as the undergraduate medical degree. At Newcastle University, students have been admitted for some years now into medical school (and other programmes) on an alternative access route called the Partners Programme, which will accept students from disadvantaged backgrounds with lower school-leaving results than the norm, after successfully attending a summer school. Of these, 92% of the 2002 to 2004 cohorts of Partners alumni graduated with a first or second class degree, which compares well with the overall average of 95% for the same three years. Similar results have been observed elsewhere. A recent article in the *British Medical Journal* (Garlick and Brown, 2008) reports on an Extended Medical Degree Programme at King's College London. Students coming from certain specified “educationally deprived” boroughs in inner London are admitted with a school-leaving result of three C-grades, rather than the usual two As and a B, and put through an extra year of study. Despite their lower entry grades, and slower start, in the later clinical years pass rates are comparable to those of conventional students.

“Our reputation will suffer.”

This is a variation on the theme of “standards will drop”. Essentially, it says: “Other people will think our standards will drop, so our reputation will suffer, which means we will not be able to attract the best students and staff, which means our standards will drop”. In a higher education environment where reputation is sometimes seen as hinging on newspaper league tables, this argument cannot be dismissed lightly. *The Times Good University Guide*, for example, uses entry scores as one of the parameters in calculating a ranking of United Kingdom universities. In the 2007 Guide, the entry score for Medicine at Newcastle University is quoted as 476 points, and its ranking on this parameter as 17th. Removing the Partners Programme students from the equation would have taken Newcastle's entry score to 510, and moved its ranking from 17th to 7th on that particular parameter, thus improving also its overall score. The Partners Programme therefore comes at a cost in terms of league table positions.

Sometimes it is best to meet this argument of reputational risk head on as we did when I was Vice-Chancellor at Stellenbosch University in South

Africa from 2002 to 2007. Stellenbosch, the university and the town, are known for a number of things: spectacular natural beauty and a wonderful climate, the heart of the wine route of the Cape, and for a long time the South African mecca of rugby. It is all of that. It is also, however, the place where apartheid was born. For many decades, Stellenbosch University had an intimate relationship with the powers of Afrikaner nationalism. D.F. Malan, the first apartheid prime minister, was a Stellenbosch resident. Hendrik Verwoerd, the architect of apartheid policy, was a professor of Sociology at Stellenbosch University before entering politics. His successor, John Vorster, was a student leader at Stellenbosch, and eventually Chancellor of the University – as was Vorster’s successor, P.W. Botha.

With that background, it is not surprising that, even after 1994, changes towards a more diverse student population were slow. For some time, while other universities painfully reinvented themselves, Stellenbosch remained an enclave of Afrikaner hegemony. Debates – such as there were – were conducted in a language almost alien to the new South Africa. When I took up the Vice-Chancellorship in January 2002, I felt that a change in the terms of discourse was a pre-requisite for a change of ethos at the university. I therefore did two things. The first, within weeks, was to state in front of a university-wide assembly that “Stellenbosch needs more diversity”. The second, once the usual arguments of the “Yes, but ...” variety were being trotted out, was to give an *educational* rationale for why more diversity would be good for the university. The claim I made was that *quality needs diversity*.³ For this point of view I gave a number of reasons, which I will not rehearse here, but the heart of the matter was the following idea:

Diversity has an inherent educational value. That is why we need more of it. The university is an educational institution. Our business is about knowledge. That means that we all have to learn, all the time. Students learn through their lectures, their assignments, their tutorials. Staff learn through their research, through their interaction with the community and through their teaching. One way or another, we all have to learn, and keep on learning. And we will learn more from those people, those ideas and those phenomena that we do not know, than from those we know only too well. We need around us people who represent the rich spectrum of South African life, and we need the diversity of ideas that are new to us. We need to pursue this diversity of people and ideas to increase the quality of our core business which is to learn. Only in this way, I believe, can we really meet our responsibility to our students. We need, and we wish, to prepare our students to become active and confident participants in a multicultural and globalised society. Whatever the advantages may be of a mono-cultural institution, they do not include the opportunity to meet and engage with many different viewpoints, and to learn about many different environments. One reason why our engagement with diversity of

colour is so urgent for us in South Africa is that engagement between black and white people is such a powerful training ground for engagement with different ideas.

As might be imagined, the idea that quality needs diversity was not an immediate hit at Stellenbosch. At first, in fact, a lot of opposition arose from a simple confusion of necessary and sufficient conditions. I was criticised for saying that an increase in diversity would result in an increase in quality. What I did say, and what eventually became understood, is that I believed Stellenbosch could not attain true educational quality without breaking away from homogeneity. Of course that did not end the debate. However, and I think importantly, it changed the nature of the debate. In particular, the fears that “standards will drop” and “our reputation will suffer” could be addressed by arguing, on educational terms, that diversity is a necessary ingredient of quality.

“It’s not our problem.”

This is the fear that universities may get sucked into a societal problem that is not of their making and to which they cannot provide a solution. The most common manifestation of this fear is “Yes, but the problem lies in the schools”. On this view, universities can only fish in a pond stocked by the schools. In the United Kingdom, the common route towards admission to university is via a school-leaving qualification called “A-level”, typically around age 18. But the common route towards A-level is via a qualification called the GCSE, typically around age 16. The most recent figures show that only 46.5% of 16-year-olds achieved GCSE results that would typically lead to A-levels (five or more GCSEs at grade C or better, including Maths and English). That is the kind of figure that may raise concerns about increasing participation in higher education. But it is the breakdown of that figure into societal groups that raises concerns about *widening* participation. According to Prof. Steve Smith, a member of the government’s National Council for Educational Excellence:

The class differences are stark. In the last year (2003) for which full details are available by socio-economic class, 42% of 16-year-olds obtained 5 GCSEs A*-C including Maths and English. Yet for children from the higher socio-economic groups that figure was 57%, for lower groups it was 31%, and for those eligible for free school meals the figure falls to 16%. We know that once a student qualifies with A levels, eligibility for free school meals makes no difference to their going to university. Therefore, the critically important determinant is that they do not progress in education after 16, mainly because their GCSE grades are not good enough to get onto the right courses. If we want to widen participation the task is to increase the percentage of those from the lowest four socio-economic groups going on to university and that requires raising their pass rate for five GCSEs, including Maths and English.⁴

Universities may well argue that raising the pass rates for 16-year-olds at GCSE level is not part of their core business. And that would be true – but it does not follow that a university may not choose, quite legitimately, to engage with this problem. At Newcastle University we have embraced the ideal of *reinventing the notion of a civic university*. There is a rich and honourable tradition of civic universities in the former industrial cities of the United Kingdom responding to societal demands for intellectual capital arising from what would now be called the “lower socio-economic classes”. The tradition of workers’ associations aimed at intellectual improvement still resonates in and around many of these cities. A recent play, “The Pitmen Painters”,⁵ tells the story, for example, of miners from a colliery in Ashington (near Newcastle) in the 1930s, who not only formed an art appreciation society, but became an active and creative group of painters of some renown. In the context of such a tradition, a modern civic university like Newcastle may choose to construct a portfolio of civic engagement which embraces engagement with schools as part of that portfolio – which we do. And we do not see that engagement as being outside our core business, since much of what we do in this regard has a scholarly educational aspect.

“It’s social engineering.”

When government policy on promoting equality in higher education is criticised as “social engineering”, there are two different aspects worth considering. One is the language of discourse. The term “social engineering” seems to be reserved for what is considered as *harmful* social engineering. Any other government-sponsored behaviour-changing initiative on a national scale, which might well fall under the same objective definition of “social engineering”, but which is considered to be benevolent and/or beneficial, will not be called social engineering. The other aspect is the fear that any government agenda of enhancing equality in higher education would be a *coercive* kind of social engineering. The fear is that universities may be pressurised into doing something they may not wish to do, or at least may not wish to do in the manner or to the extent that the state desires.

This brings into play the notion of academic freedom. My first personal encounter with such matters was at the University of Cape Town (UCT) in the 1980s, when South Africa was still an apartheid state, and the government was still implementing a coercive policy of segregating students into “black” and “white” universities. UCT was one of the universities which had opposed such policies from the outset. T.B. Davie, Vice-Chancellor at UCT in the 1950s, encapsulated the resistance of liberal universities against apartheid interference in higher education by defining academic freedom as the right of each university to decide the following for itself:

- who shall teach;

- who shall be taught;
- what shall be taught;
- how it shall be taught.

After 1994, the argument shifted in South Africa. There was broad national consensus that the legacy issues of apartheid had to be addressed. One manifestation of the government's intention of doing so was the national “mergers and amalgamations” initiative of 2002-03, which consolidated the patchwork of 36 pre-1994 higher education institutions into 22 universities, often bringing formerly “black” and formerly “white” institutions together. Stellenbosch University, where I was Vice-Chancellor, escaped virtually unscathed. An intriguing problem then confronted me. As much as I supported the T.B. Davie principles while at UCT, I was conscious of the fact that a strict adherence to those same principles at Stellenbosch, 20 years later, could be used to slow down or negate the corrective action encouraged by the post-apartheid democratic government. Stellenbosch had no lack of good applicants for most of its degree programmes. It just happened that most of them were young white Afrikaners from what were called “good schools”. If the university were to decide that it was happy with this situation, made no effort to recruit outside of that cohort, and only taught in Afrikaans, it would have been well within the T.B. Davie definition of academic freedom.

My view was that Stellenbosch *needed* more diversity, and recruiting more black students and staff was part of that goal. I therefore did not face the risk of being told to do something I did not want to do, nor did I need to make an argument on the grounds of academic freedom to avoid implementing measures of corrective action (as I was sometimes pressed to do). If anything, I faced a different category of risk, namely of being ordered by the state to do something I *did* want to do. If that were to happen, which by and large it fortunately did not, it would have put me in an awkward position. It was hard enough to try and convince sceptical Afrikaners that the university was mounting equality initiatives of its own accord, with the full approval and support of its academic Senate, and not because it was being forced to do so by government. It would have been virtually impossible to make the same argument if we had indeed been working under overt government orders.

The most common and stereotypical expression of the fear of “social engineering” in higher education is the idea that government will withhold funding from universities that fail to do its bidding. My sense of it is that in the United Kingdom, as in post-apartheid South Africa, a government that tries to exercise power over universities in this manner would lose the political argument – perhaps even within its own party. Universities have their own path to tread, as has recently been pointed out by the Vice-Chancellor of Cambridge University.⁶ There is sufficient agreement on that principle – which is another formulation of

the idea of academic freedom – to allow the higher education sector to stare down the state if need be. That is not to say that a government cannot and will not try to exercise influence. But a wise government would not try to turn influence into compulsion, because it might then lose even those universities that had already chosen, voluntarily, to engage with the equality agenda.

“It’s unfair.”

Again we have to clarify some points of terminology. In the United Kingdom, one aspect of widening participation is the idea of “fair access”. This refers to the fact that, of the cohort of young people who do enter university, disproportionately many of those who enter the so-called “leading universities” come from private schools (which, confusingly for the rest of the world, are referred to as “public schools”). That raises the question whether privately educated students, through the wealth of their parents, have an unfair advantage. “Fair access”, then, is the insistence that prospective students should be judged in terms, not just of the arithmetical fact of their school-leaving results, but of the context within which those results were obtained.

This is a line of thought I propounded myself when at Stellenbosch. The medical school again provides a good case study. During my term of office, we crossed an important threshold when more than 50% of the intake for the medical degree came from previously disadvantaged groups – that is, essentially, non-white students. Crossing that threshold could not have been accomplished by a simple algorithm of judging entry in terms of school-leaving results. It was necessary to design admissions criteria that looked at a variety of contextual data, such as school background, leadership qualities, and community work, and to supplement such data as far as possible with personal interviews.

Yet our success in what would in the United Kingdom be called “fair access” brought to light quite vividly the other side of the coin, which is the argument that this kind of contextual judgement gives rise to *unfair* access. If you ignore context, it is easy to argue that school grades reflect merit, and that admitting students with lower grades above students with higher grades – which is what special admissions programmes do – is a measure of discrimination. Certainly at Stellenbosch we had to deal annually with irate parents who resented the fact that their child had not been not selected for medical studies, while others with lesser grades had. One affluent parent offered the Faculty of Medicine a donation of 1 million Rand should his child be admitted. In South African universities 1 million Rand is a great deal of money, and we knew we could do a lot of good with such a donation. Nonetheless we turned it down.

More seriously, we were sometimes threatened with litigation, based on the accusation of unfair discrimination. Our response to this threat was twofold. First, we had a clear policy approved by Senate and Council, and we took great care to ensure that there were no procedural lapses in applying it. Secondly, however, we could rely on the fact that the Bill of Rights enshrined in the South African constitution allows the concept of “fair discrimination”, even though it disallows unfair discrimination.

Our efforts at widening participation at Stellenbosch were aided by the fact that we were also operating in a context of increasing participation. The rate of participation of students from disadvantaged backgrounds increased rapidly – but the rate of participation of white students did not decline. Between 2001 and 2006, the total number of students at Stellenbosch grew at 3% per year on average. During that time, the rate of growth of black/coloured/Indian students was 11.6% per year on average, while that of white students was about 1% per year on average. However, an increase of 1% per year roughly matches the growth rate of the white population over the same period. Thus, in crude terms, widening participation did not come at a cost to the previously advantaged.

“It’s a waste of time.”

This fear has two manifestations. The lesser one says that widening participation is a waste of time in the sense that the time, effort and money spent on it do not justify the returns. For example, in response to the article cited above in the *British Medical Journal* reporting on the extended medical degree programme at King’s College London, an editorial in the same edition points out that the scheme costs GBP 190 000 to run, and concludes by asking the question “Is it worth our while to widen participation, particularly if this risks reducing standards? Political ideology says yes, but the evidence is pending and costs are rising fast” (Ip and McManus, 2008).⁷ It is worth noting the language of discourse here: widening participation is presented as driven by “political ideology”, while questioning the King’s College programme is presented as a cost-benefit analysis – even when riding on the coat-tails of the fear factor that “standards will drop”. Nonetheless, the cost-benefit question cannot be shrugged off. Widening participation coupled with extra support does cost money, and – motives apart – it is legitimate to ask “How much does it cost?” and “Who will pay?”. In a democracy, a properly elected government has the mandate and the legitimacy to answer these questions – and a higher education sector which maintains its academic freedom has the right, collectively and individually, to decide whether to follow government policy.

The more fundamental version of the fear that widening participation is a waste of time is that it is impossible. This is the view that widening participation

and maintaining standards are inherently contradictory concepts – in short, that excellence and equality are mutually exclusive. We might call this the *strong waste-of-time* argument, to distinguish it from the weaker version which only says that the costs outweigh the benefits. Implicitly or explicitly, the strong waste-of-time view is grounded in the idea that those societal groups for which widening participation efforts are mounted are less capable intellectually, and hence less able to perform well at university, than those currently making up the norm. A short version of such an argument can be seen in the *British Medical Journal* editorial mentioned above, the opening sentence of which reads: “United Kingdom medical students tend to come from higher socio-economic classes, perhaps not surprisingly, as social class correlates with intellectual ability.”

At somewhat greater length, the strong waste-of-time argument can be unpacked into three parts. The first part is an empirical observation, namely that standard IQ tests would show a correlation between test outcomes and social class: people from higher socio-economic groups have higher IQ scores, and conversely for lower socio-economic groups. The second part of the argument consists of equating a quantitative measure, namely IQ scores, with a qualitative judgement, namely intellectual ability. The third part of the argument extrapolates from the qualitative judgement to a value judgement, namely that higher intellectual ability makes an individual more meritorious than lower intellectual ability.

I do not propose to discuss here the first part of the argument, correlating IQ with social class. I simply put it up as an observation that has been made, and as an integral part of the strong waste-of-time argument. I would, however, like to discuss and take issue with the other two parts of the argument.

About the second part of the argument, I would observe that any translation between quantitative data and qualitative judgements involves imprecision. If you try to quantify qualitative judgements, you are doing what mathematicians call *linearisation*. More precisely, you are turning a partial order into a linear order,⁸ which by definition involves loss of information. In the other direction, if you take a linear order – such as would be given by testing scores – and you put a qualitative interpretation to it, you create meaning from numbers. Different interpretations are then possible, because you put words to numbers, meanings to words and social parameters to meanings.

To illustrate the point, consider the academic career of Nelson Mandela. In his autobiography, *Long Walk to Freedom*, Mandela recounts how he started his legal studies at the University of the Witwatersrand in 1943:

The English-speaking universities of South Africa were great incubators of liberal values. It was a tribute to those institutions that they allowed black students. For the Afrikaans universities, such a thing was unthinkable.

Despite the university's liberal values, I never felt entirely comfortable there. Always to be the only African, except for menial workers, to be regarded at best as a curiosity and at worst as an interloper, is not a congenial experience.

... Our law professor ... held a curious view of the law when it came to women and Africans: neither group, he said, was meant to be lawyers. His view was that law was a social science and that women and Africans were not disciplined enough to master its intricacies. ... Although I disagreed with his views, I did little to disprove them. My performance as a law student was dismal.⁹ (Mandela, 1994, pp. 103-104)

There can be little doubt about the intellectual ability of Nelson Mandela, and even less doubt about his merit. However, there can also be little doubt that if IQ tests were carried out in the rural Transkei, where Mandela came from, on African youths in the early 1940s, they would have scored no better than children from “lower socio-economic classes” score today. And, as Mandela attests, if admitted to university at all, but finding themselves in an uncongenial environment, they might well struggle. The question is to what extent we should equate such a struggle with intellectual ability, and then with merit.

It is the identification of a qualitative judgement about ability with a value judgement concerning merit – that is, the third part of the strong waste-of-time argument – that really sets the warning lights flashing. Recently, for example, the Nobel Prize winning scientist James Watson told the *Sunday Times* that he was “inherently gloomy about the prospect of Africa”, because “all our social policies are based on the fact that their intelligence is the same as ours – whereas all the testing says not really” (Nugent, 2007). These comments drew widespread condemnation. Yet it seems that exactly the same kind of comment can be made with impunity about “lower socio-economic classes”. While the discourse of racism has become unacceptable, the discourse of classism has not. It is not uncommon to encounter a line of argument that says admitting students to university solely on the grounds of school-leaving results is nothing more than the implementation of a meritocracy, with the corollary that if the “lower social classes” are proportionately less successful, the only proper conclusion to draw is that they are less meritorious.

Consider again the pronouncement in the *British Medical Journal* editorial intimating that there is nothing surprising in the fact that United Kingdom medical students tend to come from higher socio-economic groups, “as social

class correlates with intellectual ability”. It is uncontroversial to say that in an admissions system relying mostly or entirely on school-leaving results, children from socially disadvantaged backgrounds will not be successful to the same extent as children from a socially advantaged background. The difficulty arises when such a context-free numbers-based admissions system is called a “merit-based” selection, and the successful and unsuccessful candidates, respectively, are thereby included or excluded from a presumed meritocracy. That could only be true if the playing field was level – which, by the very concept of “lower socio-economic classes”, it is not. To say that school-leavers whose parents could buy their way into “good schools” are of higher merit than school-leavers who struggled in adverse circumstances, on the sole evidence of their respective school-leaving results, seems a peculiarly narrow definition of the word “merit”.

At Stellenbosch we also struggled with the propensity to equate the fruit of advantage with innate merit. As one way of addressing this phenomenon I instituted a university-wide prize called “The Vice-Chancellor’s Award for Succeeding Against the Odds”. This was a large cash award (about double a full-cost bursary) to carefully selected students – usually three or four per year across the university – who had succeeded in rising above difficult circumstances. Not only was the value of the award much higher than existing awards, so was the amount of public attention we paid to it. At the annual official academic opening, in front of an audience of thousands in the great sports hall, we inducted the new award holders with the same pomp and ceremony as the award of honorary doctorates. At the first such ceremony I explained the rationale for the award as follows:

In line with our Vision Statement, Stellenbosch University strives to be an academic institution of excellence, with a national profile and an international reputation. Quality must be our benchmark. If so, we have to ask a simple but profound question: how do you judge quality relative to context? Some of us take for granted an environment which for others is only a dream. If so, is it not the case that our performance, no matter how well merited on the basis of our own efforts, also owes something to the environment within which we live and work?

Consider two hypothetical cases. One is a student whose parents are well-educated professional people, reasonably affluent, and who comes to us from one of the so-called “good schools”, where she enjoyed every possible facility for sharpening the mind. The other is a student whose parents have had little formal education and who live in poverty, who comes to us from a historically disadvantaged school in a gang-infested area. If the former student comes to Stellenbosch with a school-leaving mark of 90%, and the latter comes with a school-leaving mark of 70%, is

it possible for us to say that the former is a better student than the latter?
And if we do, would that be right?

In short, the claim I made was that *performance is relative to context*. In a different country and under different circumstances, I am reminded of these words whenever I hear school-leaving results being equated with merit. The students who won “The Vice-Chancellor’s Award for Succeeding Against the Odds” all had life stories to tell which made it impossible to regard them as anything other than meritorious. Most of them barely scraped into university, yet all of them performed well – some outstandingly well – towards the end of their studies, and in later life. All that the award really did was to give them a chance, by removing financial worries and showing appreciation for the route they have travelled. And a chance was all they needed.

We should think carefully before equating merit with IQ test scores – or with school-leaving results. The very word “meritocracy” is an example of how language constrains debate, and social conditions influence language. At present, “meritocracy” carries the connotation of a self-evident societal virtue. However, the word is of relatively recent coinage, and was introduced in a satirical, even pejorative, sense. It comes from a book titled *The Rise of the Meritocracy*, published in 1958 by Michael Young, a sociologist and social activist, and written as a satire of what Britain might become if those with high IQ become the new aristocracy. The satire, however, contrary to Young’s intentions, became reality. In the Introduction to a new edition of 1994, Young says, “I wanted to show how overweening a meritocracy could be”, and “if the book is not seen to be counterargument as well as argument, the point of it (or at least a good half point) will be lost” (Young, 1994). But the counterargument never received the same attention as the argument. Indeed, Young lamented in a newspaper article in 2001 that he was “sadly disappointed” that his point had been missed. The summary, in that article, of what “meritocracy” has come to mean, from the man who introduced the concept, is worth quoting:

It is good sense to appoint individual people to jobs on merit. It is the opposite when those who are judged to have merit of a particular kind harden into a new social class without room in it for the others.

Ability of a conventional kind, which used to be distributed between the classes more or less at random, has become more highly concentrated by the engine of education.

A social revolution has been accomplished by harnessing schools and universities to the task of sieving people according to education’s narrow band of values.

With an amazing battery of certificates and degrees at its disposal, education has put its seal of approval on a minority, and its seal of

disapproval on the many who fail to shine from the time they are relegated to the bottom streams at the age of seven or before.

The new class has the means at hand, and largely under its control, by which it reproduces itself (Young, 2001).

In conclusion, I offer the considerations above about fears concerning the equality agenda in general and widening participation in particular not because I believe some theory or plan of action can or should be extracted from them, but simply because I believe the comparison of different manifestations of underlying fears tells us something about what is fundamental and what is accidental. Circumstances are accidental, and differ from place to place. Fears, on the other hand, seem to be fundamentally the same, no matter where. Perhaps, therefore, there are some underlying themes. Perhaps one such underlying theme is the fear of the haves for the intrusion of the have-nots. This is not an uncommon phenomenon, and if we are honest about it perhaps we can deal with it. But doing so can be confused by accidental factors. In particular, it seems to me that an overlay of class discourse often confuses the issue. And when “lower classes” further acquires the connotation of *lesser* classes, then the extent of conceptual confusion should become cause for societal concern.

The author:

Professor Chris Brink, PhD (Cantab) DPhil (Jhb)
Vice-Chancellor
Newcastle University
6 Kensington Terrace
NE1 7RU Newcastle upon Tyne
United Kingdom
E-mail: Chris.Brink@newcastle.ac.uk

Notes

1. I first presented this paper as a keynote address at the September 2008 General Conference of the OECD Programme on Institutional Management in Higher Education in Paris. A slightly revised version was presented at a plenary session of the UK Conference of the Equality Challenge Unit in Manchester in November 2008.
2. J’ai présenté ce rapport pour la première fois dans le discours liminaire prononcé en septembre dernier à Paris lors de la Conférence générale du Programme de l’OCDE sur la gestion des établissements d’enseignement supérieur (IMHE). Une version légèrement remaniée a ensuite été présentée en novembre 2008 à Manchester, durant l’une des sessions plénières de la Conférence de l’Equality Challenge Unit (ECU) britannique.
3. I first used this phrase as the title of a speech at Stellenbosch to an international gathering of former Rhodes scholars in January 2003 as part of the centenary celebrations of the Rhodes Trust.

4. This was written in the run-up to the NCEE presenting a set of recommendations to government, dated October 2008, in which Prof. Smith authored the section on higher education engaging with schools and colleges.
5. For a review, see for example www.telegraph.co.uk/arts/main.jhtml?xml=/arts/2007/10/01/btdominic101.xml.
6. Prof. Alison Richard said in a speech to open the Universities UK Conference in Cambridge on 10 September 2008: “Responsive to and helping shape the national policy context, we need the independence and autonomy to chart our individual institutional courses, and to experiment” (www.admin.cam.ac.uk/offices/v-c/speeches/20080910.htm).
7. In a short response, the authors of the original paper point out that the places reserved for widening participation are additional to the normal number of entrants to the medical school, and the extra cost is funded not by the university but by the Higher Education Funding Council of England. See www.bmj.com/cgi/letters/336/7653/1082#195526.
8. The terms “partial order” and “linear order” have precise mathematical definitions, but the difference may be explained for present purposes as follows. In a linear order, if we know that nothing is bigger than X, we may infer that X is bigger than (or equal to) everything else. In a partial order, no such inference can be made. It is perfectly possible that each of X, Y and Z have the property that nothing is bigger than it, without any one of them being bigger than the others. By way of illustration: if you rank sports stars in terms of annual income, you get a linear order. If you rank them in terms of quality, you get a partial order, because there is no natural single measure by which a football player is better or worse at sport than a golfer.
9. Mandela eventually gave up his LL.B studies at Wits, after failing his exams several times, and took the (separate) qualification exam for an attorney in 1952 (Mandela, 1994, p. 171).

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The Knowledge Economy and Higher Education: A System for Regulating the Value of Knowledge

by

Simon Marginson

The University of Melbourne, Australia

This paper describes the global knowledge economy (the k-economy), comprised by: 1) open source knowledge flows; and 2) commercial markets in intellectual property and knowledge-intensive goods. Like all economy the global knowledge economy is a site of production. It is also social and cultural, taking the form of a one-world community mediated by the web. The k-economy has developed with extraordinary rapidity, particularly the open source component; which, consistent with the economic character of knowledge as a public good, appears larger than the commercial intellectual property component. But how do the chaotic open source flows of knowledge, with no evident tendency towards predictability let alone towards equilibrium, become reconciled with a world of governments, economic markets, national and university hierarchies, and institutions that routinely require stability and control in order to function? The article argues that in the k-economy, knowledge flows are vectored by a system of status production that assigns unequal values to knowledge and arranges it in ordered patterns. The new system for regulating the value of public good knowledge includes institutional league tables, research rankings, publication and citation metrics, journal hierarchies, and other comparative output measures such as outcomes of student learning.

L'économie de la connaissance et l'enseignement supérieur : un système de régulation de la valeur du savoir

par

Simon Marginson

Université de Melbourne, Australie

Cet article décrit l'économie globale de la connaissance (la « k-economy »), qui comprend : 1) les flux de connaissances de source ouverte ; et 2) les marchés de la propriété intellectuelle et des biens à forte intensité de connaissances. Comme toute économie, l'économie globale de la connaissance représente un site de production. Elle est aussi sociale et culturelle, prenant la forme d'une communauté mondiale unique fondée sur l'Internet. L'économie de la connaissance s'est développée à une vitesse extraordinaire, en particulier la composante source ouverte, qui, en raison du caractère économique de la connaissance en tant que bien public, semble occuper une place plus importante que la composante propriété intellectuelle commerciale. Mais comment les flux chaotiques de connaissances de source ouverte, qui de toute évidence ne tendent pas vers plus de prévisibilité et encore moins vers un quelconque équilibre, peuvent-ils être conciliés avec un monde fait de gouvernements, de marchés économiques, de hiérarchies nationales et universitaires, et d'institutions qui exige stabilité et contrôle pour fonctionner ? Cet article soutient que dans l'économie de la connaissance, les flux de connaissances sont orchestrés par un système de production de statuts qui assigne des valeurs inégales au savoir et l'organise en schémas ordonnés. Le nouveau système de régulation de la valeur de la connaissance en tant que bien public inclut les tableaux de classement institutionnel, les classements de recherche, les métriques de publication et de citation, les hiérarchies au sein de la presse, et d'autres mesures comparatives de rendement, tels que les résultats d'apprentissage.

Introduction

Seven years ago in 2002 there were no world university rankings. In some national systems there were league tables and different comparisons of performance were evident in others, but little had developed at the global level. Comparative publication and citation metrics were of interest only to specialists. No one was talking about global classifications of institutions or cross-country comparisons of learning outcomes. Institutions were not globally referenced.

Things have changed quickly. The Shanghai Jiao Tong University research rankings commenced in 2003 and the Times Higher rankings in 2004 (SJTUIHE, 2008; Times Higher Education, 2008). Rankings began to draw media and public attention in many countries and soon affected the strategic behaviours of university leaders, governments, students and employers (Hazelkorn, 2008). Measures of publication and citation performance gathered weight. The effects of the OECD PISA comparisons at school level triggered thinking about the possibility of something similar in higher education, leading to the 2008 commencement of the OECD Assessment of Higher Education Learning Outcomes (AHELO) project (OECD, 2008a, 2008b). In half a decade global referencing of research universities has taken practical, determining form and is beginning to overshadow national referencing in many countries.

Never again will higher education return to the state of innocence prior to the web and the Jiao Tong. Powerful external drivers sustain the momentum for rankings and other comparisons of countries and institutions. This article situates the sudden emergence of the global system of outcomes measures and comparisons in the evolution of the global knowledge economy (the k-economy) and in the intrinsic character of knowledge itself.

The global knowledge economy

The global stock of knowledge is knowledge that enters the common worldwide circuits ("global knowledge flows") and is subject to monetary and non-monetary exchange. It is a mixture of : 1) tradeable knowledge-intensive products, from intellectual property and commercial know-how to industrial goods; and 2) free knowledge goods produced and exchanged on an open source basis. Together the production, exchange and circulation of research, knowledge and information constitute the k-economy.

The k-economy overlaps with the financial economy and industrial economy at many points. K-economy activity is partly driven by commerce, and knowledge-inflected innovation is now central to industry and economic competitiveness. But the k-economy is not wholly contained by economic descriptors from the older industrial economy. The k-economy also has a cultural dimension, and is partly shaped by status competition which has always been integral to research and research universities. Above all, to understand the k-economy it is essential to grasp the dynamism of open source knowledge which is without precedent.

In their form as ideas and know-how and as first creations of works of art – that is, as original goods □ knowledge goods have little mass and production is ecologically sustainable. It requires little industrial energy, resting on human energy and time. Subsequently most such goods can be digitally copied with minimal resources, energy and time. Also they can be digitally reproduced as standard commodities for sale, acquiring prices and absorbing more energy. The production of commercial digital goods is subject to scarcity but freely created digital goods are not. There is no natural scarcity of free knowledge goods. They multiply again in dissemination. The condition of freely produced and circulated knowledge goods is hyper-abundance not scarcity. It is very different from conventional industrial production.

The k-economy is powered by two heterogenous sources of growth. The first is economic commerce, which turns everything to use (Braudel, 1985, pp. 628-632), including knowledge. The second is free cultural creation: decentralised, creative, chaotic and unpredictable freely circulating knowledge goods. Here the production and dissemination of knowledge goods converges with the extension of communications and expansion of markets. Manuel Castells (2000, p. 71) explains the economics of networks. The unit benefits of the network grow at an increasing rate because of an expanding number of connections. Meanwhile the cost of network expansion grows in linear terms. The cost of each addition to the network is constant. The benefit/cost ratio continually increases, so the rate of network expansion also increases over time until all potential nodes are included. Hence the extraordinary growth dynamism of open source ecology, which expands much faster than population or economic product; and its quasi-democratic tendency to universality.

In some countries over 70% of households have personal computers; broadband access was at 25% in the OECD countries in 2006; and blogs are mushrooming at an exponential rate (OECD, 2008c, pp. 55-62). The global roll-out of communications further stimulates commerce. The grid of the network metamorphoses into a product market and a system of financial exchange. Meanwhile open systems throw up more new knowledge goods from beyond the trading economy. Some turn into commodities. Others posit further acts of creation, communicative knowledge catalysing knowledge without

mediation. The technological capacity to produce and exchange knowledge and cultural forms is in the hands of growing numbers of school children throughout the world. It is much more widely distributed than the capacity to produce industrial goods or to invest at scale.

Interpretations of open source knowledge

How might we understand open source knowledge? Paul Samuelson (1954) systematised the notion of “public goods”, non-rivalrous and non-excludable economic goods that are under-produced in commercial markets. Goods are non-rivalrous when they can be consumed by any number of people without being depleted, for example knowledge of a mathematical theorem. Goods are non-excludable when the benefits cannot be confined to individual buyers, such as law and order. Paul Romer (e.g. 1990) developed endogenous growth theory to explain the role of technological knowledge not just as saleable intellectual property but as a “non-rival, partly excludable good” (p. S71) constituting conditions of production throughout the economy. Joseph Stiglitz (e.g. 1999) argued that knowledge is close to a pure public good. Except for commercial property such as copyrights and patents, the natural price of knowledge is zero. Stiglitz also noted that a large component of knowledge consists of global public goods. The mathematical theorem is useful all over the world and its price everywhere is zero.

Nonetheless, while economics has the tools to describe individual knowledge goods, it cannot yet fully comprehend a relational system – if “system” it is – partly inside and partly outside the cultural industries, publishing markets and learned academies, in which exchange is often open-ended and populated by a strange public/private mixture of e-business and gift economy and with information flows and networks tending to infinity. Notions of knowledge as a public good do not quite capture the scale, fertility and disorder of the open source regime. Samuelson saw public goods as pre-capitalist: prior to the market and becoming private goods as technologies advanced. Open source knowledge seems to be post-capitalist.

Faced with the web age, the first move of economists was to model the fast expanding stock of free knowledge goods simply as the source of commercial products. But most knowledge goods never become embodied in commodities. Even knowledge goods in their commercial form are a peculiar beast, shaped by the logic of public goods. Knowledge goods are naturally excludable at only one moment, creation. The original producer holds first mover advantage and this provides the only solid basis for a commercial intellectual property regime. First mover advantage diminishes and disappears once commercial knowledge goods are placed in circulation and become non-excludable. Any attempt to hold down commodity forms at this point is artificial. Copyright is not just difficult to police, it is violated at every

turn and impossible to enforce. In China the reward for academic publishing is not market royalties but enhanced status as a scholar. In India localised low cost copying, not commercial markets, leads the dissemination of digital goods. These approaches to knowledge goods, simultaneously pre-capitalist and post-capitalist, are more closely fitted to the character of knowledge and the open source ecology than is Western intellectual property law. Yet free knowledge goods, so hard to nail down as property in their own right, are increasingly crucial as the basis of innovations and profitable new products in every other economic sector.

In *Tertiary Education for the Knowledge Society* (OECD 2008d), the OECD swung the primary focus of policy on university research from commercial intellectual property to open source dissemination. “A common criticism of commercialisation is it takes at best a restricted view of the nature of innovation, and of the role of universities in innovation processes” (p. 120).

The idea that stronger IPR [intellectual property rights] regimes for universities will strengthen commercialisation of university knowledge and research results has been in focus in OECD countries in recent years ... countries have developed national guidelines on licensing, data collection systems and strong incentive structures to promote the commercialisation of public research ... [but] commercialisation requires secrecy in the interests of appropriating the benefits of knowledge, whereas universities may play a stronger role in the economy by diffusing and divulging results. It should be remembered that IPRs raise the cost of knowledge to users, while an important policy objective might be to lower the costs of knowledge use to industry. Open science, such as collaboration, informal contacts between academics and businesses, attending academic conferences and using scientific literature, can also be used to transfer knowledge from the public sector to the private sector ... there have been very few universities worldwide that have successfully been able to generate revenues from patents and commercializing inventions, partly because a very small proportion of research results are commercially patentable. In addition, pursuing commercial possibilities is only relevant for a select number of research fields, such as biomedical research and electronics. (OECD, 2008d, pp. 102-103)

Mostly commercial realisation is better left to the market. The main game in universities is the production and dissemination of “open science”. Free dissemination of knowledge lowers its cost and speeds innovation at the cutting edge of economic competition.

Regulation of the value of open source knowledge

In principle global exchange is open and the volume of traffic tends to infinity. Researcher agency is association rich and initiative rich. It is time poor and this is a principal constraint. Hyper-increasing communicability taxes our creative and productive time (Murphy and Pauleen, 2009). But that issue is blurred for we create knowledge goods in and via our communicative associations. We are both more creative because of growing communications and more frustrated by the failure to fulfil the larger communicative potential.

Are all communications, cultural creations and public knowledge goods really equivalent in value? Economics says yes. All have no price. But goods without market economic value may be heterogenous in other ways. Is money the only medium where the value of knowledge is regulated? No it is not. Do knowledge and information circulate freely from all quarters in a universal process of flat cultural exchange? No. Knowledge flows freely and disjunctively, but when it passes through institutional settings and publications systems it becomes structured and acquires new social meanings. It is channelled and restricted in often one-way flows. The means of knowledge production are concentrated in particular universities, cities, national systems, languages, corporations and brands with a superior capacity in production or dissemination that stamp their presence on the k-economy and pull the flows in their favour. Knowledge is shaped and codified in research grant and patenting systems; research training; journals, books and websites; research centres and networks; professional organisations and academic awards. These processes are mostly led from the principal centres of global knowledge power, mostly in the United Kingdom and the United States (Marginson, 2008a). These exercise an (always provisional) authority in relation to the open source sector, without fully controlling it.

But *how* do the chaotic open source flows of knowledge, which have no evident tendency towards predictability let alone to equilibrium, become reconciled with a world of national hierarchies, economic markets and institutions that routinely require stability and control in order to function? How is knowledge translated from the open source setting into formal processes and institutions so that these processes secure coherence and often a controlling role within the global k-economy? In the k-economy, knowledge flows are regulated by a system of status production that assigns unequal values to parcels of knowledge and arranges them in ordered patterns. This system of status production has older roots but has rapidly emerged in more systematic form in the wake of the web and the explosion in open source knowledge. The new means of assigning status values to parcels of knowledge are league tables and other institutional and research rankings; publication and citation metrics; and journal hierarchies. They may expand to other ordinal outputs such as comparative outcomes of student learning.

For a long time knowledge was structured in universities in semi-formal procedures and conventions. Institutional ranks and journal hierarchies operated by elite consensus and osmosis rather than transparent and universal metrics. In the last half decade, modernised, systematic and accessible instruments have emerged primarily from the publishing industries, from the web and in higher education itself; domains equipped to imagine global relations, though often with government support. These mechanisms appeared more or less spontaneously and rapidly spread around the world because they fulfil needs almost universally felt: to manage the formless and chaotic public knowledge goods and to guide investments in innovation.

If the k-economy consisted solely of commercial markets in knowledge goods, then there would be no need to devise a status system for translating knowledge into ordered values. Market values expressed in prices would serve the purpose. However most knowledge does not and cannot take the commercial form because of its public good character.

Instruments of value

Rankings

The first mechanism to secure a coherent global role was university rankings. Only one world ranking is both credible social science and broadly used: the Shanghai Jiao Tong University which is confined to research. Its weakness is the dependence on Nobel Prizes for 30% of the index. The Nobel Prize is submission-based and partly reputation driven and lacks objectivity as a measure of stellar science. (Note also that the Nobel indicators reward the universities of training and current employment but not the university where the discovery was made.) However the rest of the Jiao Tong index is defensible: the number of leading (“HiCi”) researchers as measured in citation counts, publication in *Science* and *Nature*, and publication in recognised disciplinary journals; and these outputs on a per faculty basis. The data have been extended to rankings in five broad disciplinary fields. The Jiao Tong Institute has made a major contribution to global comparison. It has established the principles of measurement of real outputs rather than reputation, and transparent and accurate data collection, setting a benchmark for other measures and rankings. The integrity of the Jiao Tong ranking has hastened the evolution of the k-economy itself. The fit between performance, data and ranking position is strong enough for countries, universities and doctoral students to use the relative Jiao Tong position and changes in that position to guide strategic planning and investment decisions.

The Jiao Tong league table is often read as a world’s best university list, not a research list. This is unfortunate but hard to stop in the absence of a credible all-round measure of performance that includes teaching and/or student

learning (Dill and Soo, 2005). There are also concerns about the bias of the measures in favour of English language countries, big science and medical universities. Nevertheless the Jiao Tong has become broadly accepted in most countries as a means of computing the relative research capacity of universities and systems. It is much better known than the ranking by the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT, 2008). This provides a larger set of research indicators also reconciled in a composite index and single league table. The data are informative but lack the appeal of the Jiao Tong ranking which has simplicity and first mover advantage.

At first the *Times Higher* ranking had nearly as great an impact because it promised to measure all aspects of university standing, not just research. However, while the data continue to be publicised and have been taken in by *US News and World Report*, the doyen of American ranking (*US News and World Report*, 2008), flaws in the *Times Higher/QS* Marketing compilation have been exposed. The peer survey has a 1% return and over-represents the former British Empire countries. Standardisation procedures alter from year to year. Sharp fluctuations in the ranking of individual universities do not seem performance related (Marginson, 2007). Further problems include the use of a quantitative indicator, staff numbers, as proxy for the quality of teaching; a student internationalisation indicator that rewards student quantity not quality; and the inclusion of research performance at just 20% of the index. The Jiao Tong data have secured higher standing, especially among institutions and among the users of research.

Publication and citation metrics

The Jiao Tong ranking has brought bibliometric data on research and citations, including impact measures and judgements about the centrality and quality of field-specific journals, into the mainstream. The Taiwan initiative is one case and is more interesting as separate indicators than as a single index. The field of data compilation involves two major publishing houses and researchers in many countries specialising in science indicators. In 2007, Leiden University in the Netherlands announced a new ranking system based on its own bibliometric indicators, using four rankings of institutions: publication numbers; average academic impact measured by citations per publication; average impact measured by citations per publication modified by normalisation for academic field, that is, controlled for different rates of citation in disciplines; and the last measure modified to incorporate institutional size, the “Crown Indicator” (CWTS, 2007). Leiden dispensed with the Nobel indicators, counts of leading researchers and a composite indicator based on arbitrary weightings. Arguably the Crown Indicator provides the best comparative data on research performance so far, though like all such metrics it tends to block recognition of innovations in field definition and new journals.

Classifications

The use of institutional classifications as part of a system of comparison opens the way to plural comparisons in place of a single global ranking regardless of mission. Institutions of like mission and/or activity profile are compared with each other. Research-intensive universities, specialist technical vocational institutions and stand-alone business schools are each grouped with their fellows. This enables more precise, less homogenising comparisons and better identifies the worldwide distribution of capacity in the k-economy. As yet there is no global classification but some of the building blocks are being put in place. The United States has the Carnegie classification. China has developed national classifications, and a classification is being developed for the 3 300 higher education institutions in the European Union and 4 000 in Europe as a whole (Bartelse and Van Vught, 2005, p. 9; Van der Wende, 2008). Classifications advance institutional and system transparency; facilitate cross-border student investment and other mobility; and constitute an additional set of regulatory tools for policy makers.

Comparative learning outcomes

The potential impact of comparative objective measures of learning outcomes can hardly be overstated. At present, the main means of measuring comparative learning outcomes, likely to receive further international development (CHE, 2008; Usher, 2008), is surveys of students or graduates. These data are limited by their subjective character. The OECD AHELO project is piloting measures of the generic skills of graduates, graduate competence in two disciplines (engineering and economics), graduate employment outcomes, and contextual data to assist data interpretation. It is envisioned that the units of comparison will be individual institutions rather than national systems. This exercise by no means covers the whole of the public and private goods generated in teaching and learning but opens a vital new terrain for comparisons. Though the technical and policy obstacles are formidable, there is much policy momentum in its favour.

Drivers of the research university

Thus research universities have emerged as key sites in the k-economy while becoming locked in by comparisons that reference them on a global scale and mark them with values readily comprehended by the many investors in knowledge and only partly internal to the institutions themselves. While global comparisons matter little in the United States, which dominates them and so focuses on national rather than global contestation (Marginson, 2008a), elsewhere their significance is inescapable. (US interest will quicken if the East Asian countries, especially China, advance substantially within the top group of research universities.)

Thus research universities are subject to two systems for regulating value, operating alongside each other, sometimes intersecting: the *economic value* of commercial knowledge as represented by intellectual property and commercial knowledge products; and the *status value* of public good knowledge as determined by university rankings, research and publication metrics, and probably also by learning outcomes in future. Research universities are pulled by both kinds of value regulation but their eggs are mostly in the second basket. Only a small portion of knowledge generates surplus revenues. But all knowledge can generate prestige that enhances the relative position of higher education institutions within the k-economy.

Nevertheless measures of the status of knowledge are applied to only those parts of knowledge that are codified in refereed papers, monographs and other formal mechanisms. A third large but misty category of knowledge remains outside the regulation of value – that part of research, scholarship, ideas, and other knowledge and information created in universities and elsewhere whose value remains uncoded, works neither sold in a market nor counted and ranked in a status system, and works that remain as open source knowledge. More such knowledge is created all the time. It always has the potential to feed into the formal academic domain, and conditions that domain, but much never finds its way there. Some open source knowledge feeds straight into the commercial domain, in consulting and “quick and dirty” research, without undergoing the processes of academic valuing and hierarchical arrangement.

The research university is driven three ways by the commercial imperative, the formal knowledge status system, and the unpredictable swirlings of open source knowledge. These are three heterogenous “systems” that intersect untidily with each other and have differing implications for national organisation, institutional forms and academic behaviours.

Antinomy of the k-economy

Much of the analysis of research in universities is focused on ongoing tensions between commerce and academic values (*e.g.* Bok, 2003). However, as the OECD notes (2008c) the commercial portion of research, while economically significant, constitutes a relatively small part of total research revenues and research time in higher education. This suggests that the more important tension is between open source knowledge production, and the status hierarchy in knowledge and knowledge production that is fostered by rankings and metrics.

The world of authoritative science is very different from that of open universal knowledge. Status competition assigns value; open source ecology does not. Status competition is framed by absolute scarcity and zero-sum

distribution; open source ecology is characterised by hyper-abundance and dissemination without limit. Status is bounded and at the top is scarcely contestable: elite research university groupings are almost inaccessible to new entrants (Marginson, 2004). Status competition implies closure. Research quality and research priorities are ordered hierarchically and the production of leading edge university education is miniaturised (limited student entry maintains a selective student body which enhances value and attracts research capacity). Open source ecology sustains openness, its borders are porous and flexible and it continually moves into new areas of activity in response to demand, supply and the strategic imagining of researchers and executives. The price of status goods rises proportionately with status; the price of open source knowledge goods not captured by status is zero, regardless of use value. Status rests on power, money and reproductive authority. Open source production and dissemination are sustained by the merits of cultural content.

Nevertheless, open source knowledge production and status driven knowledge come together at scale and often reach a *modus vivendi*, side by side in the same workplaces (often joined also by commercial knowledge). The open source domain is a continued source of material for the other. Industry is more likely to draw innovations from the formal domain but the open source domain is always a continuing resource. The relation between the formal and open source domains is more antinomy than contradiction. But it is not unproblematic.

Modifying the instruments

There is scope to modify the instruments of comparison that have so far developed; whether to highlight the interests of particular national systems, institutions, disciplines or policy purposes; or to facilitate the effective workings of the k-economy as a whole.

The k-economy requires mechanisms of comparison and ordering that are “clean” in the sense of transparent, grounded in sound social science and free from contamination by particular interests (for example individual universities should not select or interpret the data on themselves). It also requires mechanisms that foster universal improvement, rewarding all institutions that improve their real performance in relative terms with a higher ranking. The k-economy, especially the extraordinary potentials offered by the rapidly expanding stock of open source knowledge, also suggests the need for mechanisms inclusive of different types of institution, forms of knowledge, and cultural and linguistic traditions. As noted, the present mechanisms normalise the English speaking high science and medicine research university.

The need to accommodate diversity suggests the need for measures and ordering procedures that provide maximum room for self-determination and creativity in knowledge formation. For example, are the systems for assigning value to knowledge always consistent with intellectual freedoms, including the freedom to initiate new lines of inquiry? There is the risk that organisational strategies designed to maximise high value countable research outputs, as measured by citation metrics and rankings, will confine the free creativity typical of the open source domain, driving a higher proportion of inquiry down predictable intellectual pathways. Here the pursuit of individual institutional interest may undermine the common interest, a problem analogous to that of trade protection.

The OECD suggests that top-down systems for driving knowledge and undue focus on short-term indicators of competitive performance can inhibit open source potentials or weaken transfers between the open source domain and the formal research sector (OECD, 2008d, *e.g.* p. 124; Marginson, 2008b). The chaotic mobility of open source knowledge will always elude efforts to pin it down and store it in glass cases. It re-emerges regardless. The question is whether the channels between the open source domain and formally recognised knowledge are broad enough to enable the former to become visible and break open the easy mimetic assumptions of the latter. The k-economy requires systems for managing knowledge that maximise the visibility of open source, while suspending for as long as practicable the moment where value is assigned and the knowledge assumes more practical, closed and limited forms. Despite the pressures to shorten the time between creation and formalisation, consistent with researcher and user interest, the communicative environment provides tools for modulation. For example the use of non-selected non-valued web publishing (Aguillo, 2008) prior to final codification in academic journals enhances both transparency and the fecund openness of the knowledge.

The use of a richer, more plural and more diverse set of outcome indicators also opens greater space for creativity. A single ranking system and index of the value of knowledge might appear to offer certainty and clarity, but at the cost of the diversity of knowledge and the validity of data. The weightings used in composite indexes are arbitrary and single numbers and one-league tables conceal more than they reveal. Separated measures enable much more comparative data; and comparisons based on limited elements or objectives are closer to data validity. Plurality also helps to foster the potential global diversity of knowledge. The more that comparisons governed by different objectives and models of higher education can emerge, the more the normalising and homogenising effects of any one comparison are diminished; the more the potential for different fitness for purpose comparisons is enhanced, the more stakeholders can customise the comparative data to suit

their own mix of purposes. Plurality of rankings has particular benefits for those regions and institutions with academic cultures divergent from the norms of the Anglo-American science university, by providing scope for comparative performance data grounded in their own history and context.

The author:

Professor and Dr. Simon Marginson
 Professor of Higher Education
 Centre for the Study of Higher Education
 The University of Melbourne
 715 Swanston Street
 Victoria 3010
 Australia
 E-mail: s.marginson@unimelb.edu.au
www.cshe.unimelb.edu.au/people/staff_pages/Marginson/Marginson.html
www.cshe.unimelb.edu.au/

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Rankings and the Battle for World-Class Excellence: Institutional Strategies and Policy Choices

by

Ellen Hazelkorn

Dublin Institute of Technology, Ireland

Global rankings are creating a furore wherever or whenever they are published or mentioned. They have become a barometer of global competition measuring the knowledge-producing and talent-catching capacity of higher education institutions. These developments are injecting a new competitive dynamic into higher education, nationally and globally, and encouraging a debate about its role and purpose. As such, politicians regularly refer to them as a measure of their nation's economic strength and aspirations, universities use them to help set or define targets mapping their performance against the various metrics, while academics use rankings to bolster their own professional reputation and status.

Based on an international survey (2006) and extensive interviews in Germany, Australia and Japan (2008), this paper provides a comparative analysis of the impact and influence of rankings on higher education and stakeholders, and describes institutional experiences and responses. It then explores how rankings are influencing national policy and shaping institutional decision making and behaviour. Some changes form part of the broader modernisation agenda, improving performance and public accountability, while others are viewed as perverse. Their experiences illustrate that policy does matter.

Les classements et la course à l'excellence de niveau international : stratégies institutionnelles et choix politiques

par

Ellen Hazelkorn

Institut de technologie de Dublin, Irlande

Les classements mondiaux suscitent l'enthousiasme chaque fois qu'ils sont publiés ou mentionnés. Ils sont devenus le baromètre de la concurrence mondiale, mesurant la capacité des institutions d'enseignement supérieur en termes de production, de savoir et de captation des talents. Ces développements injectent une nouvelle dynamique de compétition dans l'enseignement supérieur, au niveau national et mondial, et suscitent un débat sur son rôle et ses objectifs. À ce titre, les hommes/femmes politiques y font régulièrement référence en tant qu'instrument de mesure de la puissance économique et des aspirations de leur nation, les universités s'en servent pour établir ou définir leurs objectifs en termes de performance par rapport à diverses métriques, tandis que les universitaires utilisent les classements pour appuyer leurs propres réputation et statut professionnels.

Cet article se fonde sur une enquête internationale (2006) et des entretiens approfondis menés en Allemagne, en Australie et au Japon (2008) pour réaliser une analyse comparative de l'impact et de l'influence des classements sur l'enseignement supérieur et ses parties prenantes et pour décrire les expériences et réponses institutionnelles. Cet article étudie également la manière dont les classements influencent la politique nationale et façonnent la prise de décision et les comportements institutionnels. Certains changements s'inscrivent dans le cadre plus large du programme de modernisation qui tend vers une amélioration des performances et une plus grande responsabilité publique, tandis que d'autres sont considérés comme pervers. Leurs expériences démontrent l'importance des choix politiques.

Globalisation, rankings and public policy

The evolution from agricultural to industrial to knowledge production has transformed every aspect of society, worldwide. Across the OECD, there is strong acknowledgement that the “transition to more knowledge-based economies, coupled with growing competition from non-OECD countries” requires heightened capacity and capability to create, disseminate and exploit “scientific and technological knowledge, as well as other intellectual assets, as a means of enhancing growth and productivity” (OECD, 2004, p. 11). Because knowledge has become the foundation of economic, social and political power, higher education is at the top of the policy agenda. Yet, many countries face difficulties associated with sharp demographic shifts evidenced by the greying of the population and a concomitant decline in students, especially PhD graduates. The “scramble for students” (Matsumoto and Ono, 2008, p. 1) or “battle for brainpower” now complements traditional geo-political struggles for natural resources (Wooldrige, 2006, p. 2). Global competition is reflected in the rising significance and popularity of rankings which attempt to measure the knowledge-producing and talent-catching capacity of higher education institutions (HEIs).

While the immediate popularity of rankings has been credited with satisfying a “public demand for transparency and information that institutions and government have not been able to meet on their own” (Usher and Savino, 2006, p. 38), these explanations do not fully explain the almost instantaneous and universal endorsement and obsession with the Shanghai Jiao Tong *Academic Ranking of World Universities* (henceforth SJT, 2003) or the Times QS *World University Ranking* (THE – QS, 2004). Within months of publication, a major European Union meeting was told Europe was “behind not just the US but other economies” (Dempsey, 2004). This assessment was based on the first SJT ranking which showed only 10 European universities among the top 50 compared with 35 for the United States. In subsequent years, it has been followed by numerous government and institutional pronouncements and pledges, and occasional hand-wringing and exhortations.

The arrival of the SJT and the Times QS was remarkably well-timed and auspicious, albeit arguably, global rankings were a product whose time had come. As a manifestation or artifact of globalisation, rankings appear to order global knowledge and give a “plausible” (Marginson and Van der Wende (2007, p. 55) explanation for or framework through which the global economy and

national (and supra-national) positioning can be understood. As such, politicians and ministry officials, across the OECD and beyond, follow rankings closely. While reticent to acknowledge the full extent to which rankings provide the justification and/or evidence for policy and decision making, they are anxious to strengthen and/or protect the global status of their universities. To lose status can be humiliating for nations and institutions alike (EdMal, 2005; Alexander and Noonan, 2007).

Globalisation has changed the relationship between higher education and the state, but it is also transforming the relationship between institutions, and between institutions and society. In place of the old bargain wherein HEIs were “largely free to do as they choose, funded but not impeded by a grateful state”, their activities are now tied directly to national economic success (Robertson, 1997, p 78). By highlighting reputational differentiation, rankings have affected all HEIs – even institutions which had previously been sheltered by history, mission or governance. High-ranked and not-ranked, international-facing and regionally-focused, all institutions have been drawn into the global knowledge market, challenging underpinning assumptions about (mass) higher education. Rankings are helping transform all HEIs into strategic corporations, engaged in positional competition, balanced fragily between their current and preferred rank. By appearing to strengthen or grant visibility to some institutions, rankings have also exposed perceived weaknesses at the system and institutional level. To succeed, or even just survive, requires significant changes in the way HEIs conduct their affairs. Despite criticism of the methodological validity of particular indicators or the weightings attributed to them, rankings have become a policy instrument and management tool.

This paper provides a comparative analysis of institutional responses and strategic choices drawing upon a 2006 international survey and interviews with higher education (HE) leaders, faculty, students and stakeholders in Germany, Australia and Japan during 2008.¹ The three countries share some common characteristics and experiences:

- i) a national ranking system;
- ii) competitive challenges to the historic and presumptive global position of each country;
- iii) government policy to reform/restructure higher education in response to escalating competition;
- iv) internationalisation as an important goal.

Their experiences enable a broader understanding of the impact and influence of rankings, beyond that of individual institutional behaviour. The paper is organised as follows:

- Part 1 identifies salient characteristics of the impact and influence of rankings on higher education.
- Part 2 provides a broad overview of the policy context within the target countries.
- Part 3 describes some institutional and policy choices.

The conclusion provides a short summary and reflects on the implications.

Impact and influence of rankings²

Initially college guides fulfilled a public service role aimed at informing undergraduate students and their parents. They were usually produced by media organisations or independent agencies, which rated and occasionally ranked HEIs using a combination of qualitative and quantitative information. Over time they developed an advocacy or public accountancy role, re-interpreting government and other public data or developing bespoke surveys on, *inter alia*, research productivity and teaching/learning into a ranking, with or without weightings. By effectively naming and shaming, rankings introduced a competitive dynamic into the national system which was seen to positively influence institutional behaviour and thereby improve quality. Global rankings were the next logical step, but they shifted attention to a single dimension: research. Today, rankings consciousness is on the rise around the world accelerated by “excellence” initiatives, shifting national demographic profiles, student and professional mobility, public belief that rankings are equated with quality and value for money, and media coverage of the results.

Given this scenario, it is not surprising that 58% of respondents to the 2006 survey were so disappointed with their current rank that 93% and 82% want to improve their national or international position, respectively. And, notwithstanding methodological concerns or the mathematical impossibility of it, 70% desire to be in top 10% nationally and 71% in the top 25% internationally (Hazelkorn, 2007). HE leaders believe “rankings are here to stay” and they have little alternative but to take them “into account because others do”.

Across OECD countries, the impact of rankings on higher education shares a number of well-documented characteristics (Hazelkorn, 2007, 2008; Locke et al., 2008).

Student choice

As the marketisation of higher education has transformed students into savvy consumers, rank has become a source of information, and an attribute of self-pride and peer esteem. Each category of student uses rankings differently.

- *Domestic undergraduates* usually attend a local or easily accessible university. They are informed by a combination of local intelligence, local rankings (e.g. Ashahi Shimbun University Ranking [Japan], CHE-HochschulRanking [Germany], the Good University Guide or the Melbourne Institute *International Standing of Universities* [Australia]), or entry scores [Japan] perceiving the difficulty of entry as an indicator of quality. High-achievers are increasingly more mobile, with the proportion of “out-of-zone” students varying according to institution. Ranking consciousness rises while at university.
- *International undergraduates* constitute a relatively small percentage of the student cohort, except for Australia where approximately one in five is a foreign student. Their decision is based on local intelligence and family connections, although residency requirements may also be a factor.
- *Domestic postgraduates* use rankings to inform choice. While making complex choices based upon field of specialisation and expertise of faculty, they are keenly attuned to the perceived after-sale value of their qualification. High-achieving postgraduates are mobile within their country and increasingly to another.
- *International postgraduates* are the major consumer of global rankings, using them to shortlist a choice of institutions, sometimes within an identified country: “[They] Might know about Australia, but not where in Australia to go”. Like their domestic colleagues, international students are conscious that rank can transmit social and cultural capital which resonates with family, friends and potential employers. This can be critical for students seeking employment in their home country, as this Asian experience testifies: “... I have a colleague who graduated from Columbia University and she’s holding a very high position... They did not tell me frankly but I could read their minds that if I am lucky enough to graduate at this university I could not be as highly appreciated as the one who graduated from Columbia University.”

In summary, students use rankings to select or verify their choice rather than determine their choice, although this is dependent upon ability and socio-cultural aspirations. Those seeking professional employment, in medicine and law, or an academic career, are more aware of status than students in other/newer disciplines, e.g. media/journalism or liberal arts. Students are particularly sensitive to media coverage and publicity: “we’ve got one university which has suffered a very steep drop in enrolments internationally and it’s because of bad publicity ...”.

In turn, demographic changes and accelerating competition have compelled HEIs and governments to use rankings to target particular types of students. New sophisticated marketing/recruitment strategies are being developed to woo high-achieving students with attractive financial and scholarship packages. In turn, HEIs use rankings to short-list postgraduate applicants, while governments are tying study-abroad scholarships to high-ranked HEIs.

Strategic thinking and planning

Rankings are an item on the agenda of most senior executive meetings, and the majority of HEIs undertake some form of analysis usually led by the Vice Chancellor/President but occasionally by the governing body. Sixty-three per cent of respondents said they had taken strategic, organisational, managerial or academic action, while only 8% said they had taken no action (Hazelkorn, 2007). This represents a remarkable change from the 20% of US university presidents who claimed they ignored rankings in 2002 (Levin, 2002).

The majority of institutions use rankings to set a target or benchmark, “selectively choosing indicators for management purposes”. The metrics are carefully analysed and mapped against actual performance to identify strengths and weaknesses, aid resource allocation, and often designate key performance indicators for individual department/units. Rankings provide the evidence or rationale for making significant change, speeding up reform or pursuing a particular agenda. It “allows management to be more business-like”, for evidence-based decision making and offers “a rod for management’s back”.

For many HEIs, rankings have taken on a quality assurance (QA) function, especially in countries where QA mechanisms are relatively new or weak. This may reflect a lack of public trust in institutional-based assessment. HEIs are paying more attention to student satisfaction, the quality of the teaching/learning environment and facilities, etc. Although different processes, there is a close correlation between professional accreditation and rankings. The former provides a similar international value-mark; institutions without appropriate accreditation in those fields for which professional recognition matters may find themselves increasingly isolated.

Re-organisation/re-structuring of HEIs

Rankings are influencing the shape of HE organisations, *e.g.* merging discipline compatible departments or whole institutions, incorporating external organisations within the domain institution or, on the contrary, separating undergraduate and postgraduate activity via creation of semi-autonomous research institutes/Centres of Excellence or graduate schools. The latter is a universal theme. The objective is not just greater efficiencies

but better visibility through critical mass: more active researchers working in teams, winning more competitive funds and producing more verifiable outputs, with national/international partners, in a timely fashion. In countries where English is not the native language, the emphasis is on creating the above as English-language units.

HEIs are professionalising admissions, marketing and publicity activities into year-round offices with rapidly expanding budgets and staff. A fully-resourced institutional planning and research office is *de rigueur*. Almost 50% of international respondents and 35% of US presidents use their rank for publicity purposes (Hazelkorn, 2007; Levin, 2002), highlighting positive results on their webpage, in speeches or when lobbying government.

HE priorities

There is growing evidence that rankings are influencing priorities, including curriculum: a growth in (English-language) specialist/professional Masters programmes to attract international students, harmonising programmes with US or European models, such as Bologna, or discontinuing programmes. The biggest changes are apparent in rebalancing teaching/research and undergraduate/postgraduate activity, and re-focusing resource allocation towards those fields which are likely to be more productive and better performers. Regardless of what kind of HEI, the message is clear: “research matters more now, not more than teaching necessarily but it matters more right now at this point in time”.

The arts, humanities and social sciences feel especially vulnerable. Professional disciplines, *e.g.* engineering, business and education, which do not have a strong tradition of peer-reviewed publications, are also under pressure. There is little doubt that HEIs are considering the costs associated with remaining in fields/disciplines which are deemed less vital to their profile or perform poorly on comparative indicators. Their choice is boosting the performance of strong areas and perhaps redistributing funds to weaker areas later, bringing weaker areas up to the level of the strong or closing them down. There is evidence of the (relative) strengthening of bio-science areas, accomplished by using the president’s special fund to assign additional faculty to particular units or building new dedicated labs and other facilities, or indirectly by rewarding those departments which are especially productive or secure exemplary funding.

Academic profession

Academics are coming under intense pressure to alter the way in which they have traditionally performed. Rankings are used to identify the best and under-performers: “I think the university needs to calm down. We’ve had two

career panic days; it's what I call them where they're like Communist training sessions where everyone has to stand up and say what they are doing to improve their career."

Institutional autonomy has enabled the introduction of market-based salaries, merit/performance pay and attractive packages to be used to reward and woo high-achieving scholars. Recruitment emphasis is on mid-career scholars, amid fear this may impact negatively on post-docs, younger scholars and women.

At the same time, faculty are not innocent victims. They are quick to use rankings to boost their own professional standing and, as one person stated, are "unlikely to consider research partnerships with a lower ranked university unless the person or team was exceptional".

Stakeholders

While rankings were initially developed to inform undergraduate students and their parents, ranking consciousness now extends to a wide range of external stakeholders. Most governments are cautious about acknowledging the extent rankings inform policy thinking, but the various excellence initiatives are a good example (Salmi, 2007). Alumni, philanthropists and industrial partners refer to rankings as an indication of the value of their relationship or potential return on investment. Small and medium-sized enterprises and local employers have implicit rankings based on their own experiences which are self-perpetuating although larger/international businesses and professional organisations are more "systematic".

Policy environment and institutional positioning

HEIs are often perceived as responding irrationally to rankings, but do they? This section comprises brief vignettes – drawing on the experience of Germany, Australia and Japan – to contextualise institutional responses.

Germany

"What are the universities people talk about internationally – Oxford, Cambridge, Harvard, Stanford – but no German universities ... We look back decades and people came to German universities; today they go to US universities."

The *Exzellenzinitiative* (2005), coupled with demographic shifts and increased institutional autonomy, marks a significant shift from traditional emphasis on egalitarianism – "having good universities across Germany" – towards competition and hierarchical stratification. Global rankings, rather than the CHE-HochschulRanking which has existed since 1998, are identified as the prime driver. In the absence of German universities among the top 20 or

50 in the SJT and only one in the Times QS ranking (Chambers, 2007), it aims to promote top-level science and research via graduate schools and Excellence Clusters. In so doing, the objective is to create a German “Ivy League” and reclaim Germany’s historic leadership position in research.

Not only did the *Exzellenzinitiative* provoke a huge response from the universities and jockeying for position for “relatively small amounts of money” (EUR 1.9 billion over five years), but the results have been perceived and used both within Germany and in the other countries as a ranking. One HEI’s lack of success in the first round of the *Exzellenzinitiative* was interpreted as “Are you not excellent anymore?”. It boosted international visibility – giving “a little more glamour to Germany” –, and increased interest from international students and faculty who found it “not as easy as ... before to get a visa to the US”, and from employers and industrial partners.

Despite criticism that global rankings do not adequately measure Germany’s strong presence in engineering/technological fields, HEIs are developing strategies and readying their institutions for the more competitive environment. This means using rankings to define targets and promote a distinctive profile. Ambitious HEIs have already adopted a more professional approach to management, strategic planning and decision making, using attractive salary and benefits packages to head-hunt international scholars. Institutional position is critical to this strategy.

The emphasis on elite institutions is straining traditional fault-lines (e.g. between the more distinguished HEIs of the South/South West and those of the North/East) and creating new alliances (between universities and research institutes, and between universities). Rankings are also altering the relationship between universities and *Fachhochschulen*. “[I]t depends not so much on the type of [HEI] ... but more on the specific profile and in that sense universities ... [have] very much relied on their status as a university. They are ... afraid of the new competition with some *Fachhochschulen*.”

There is some reluctance to admit the scale of likely changes but no institution, department or discipline is immune.

Given EU policies (e.g. Bologna) and Germany’s geographic position, regional, cross-border and global “networks of excellence” have increasing importance for benchmarking, research, programme development and student/academic exchanges. Higher education’s relationship to the *Länder* (which are essentially competing with each other) and the federal government is already taking a different form. Thus far, rankings are viewed positively – globally ranked HEIs are a matter of national pride. There are few voices arguing to return to traditional egalitarian values.

Australia

“... the government is very keen for Australia’s export image to be seen to have these high class universities and then ... say to the world look we have high class universities in Australia, come and study here. You don’t only have to go to the US or the UK ... [it is a question] of the export image.”

Australian HEIs have operated in a competitive environment, nationally and globally, for years. The replacement of the binary with a unitary system in 1989 coupled with fiscal incentives and other liberal policies introduced a strong competitive element, and compelled HEIs to earn an increasing proportion of their income from tuition fees, performance and international students. The latter has made Australia the major student-importing country internationally comprising 19.3% of the student population (2005) exceeding the OECD average of 6.7%, although it lags behind in the vital postgraduate/PhD student market (OECD, 2007). In some universities/faculties, international students comprise over 50% of total students. Education is the third largest export sector in Australia (IDP, 2008). This situation is both a cause for celebration and anxiety; it is unlikely the government or alternative income sources can replace the AUD 2 375.4 million earned in international fees in 2006.

The SJT and Times QS consistently feature at least two Australian universities among the top 100. This is greeted positively by those who welcome enhanced visibility for “brand Australia” and critically by those who say Australia lacks “truly stellar research universities” (Marginson, 2008). These responses reflect the opposing strategic options now being considered: to abandon the egalitarian policies and preferentially fund a small number of top-tier competitive universities or to ensure the “creation of a diverse set of high performing, globally-focused institutions, each with its own clear, distinctive mission”.

Despite statements to the contrary, rankings are informing and influencing institutional strategies. They are regularly discussed at senior team meetings, and most HEIs are engaged in microscopic mapping or benchmarking exercises. HE leaders and planners “play against a basket [of rankings] and link it to your mission”; some have a (privately held) preferred ranking-designation.

... the fact that you can link an international student driver and a domestic research driver and a government agenda and a philanthropist all through the one mechanism is quite a powerful tool in the arsenal of management and so I actually think it’s been good for the sector in being able to drive change and create a vehicle or a discussion point that then gives management more impetus ...

Rankings feature in public and official announcements, on webpages and blogs, in brochures, and in any other publicity/marketing material: we “use whatever accolades [we] have and ignore everything else”.

Because international students are most likely to use global rankings, globalisation is injecting a new competitive dynamic into the system and debate about the role and purpose of mass higher education. It has reawakened arguments about the 1989 Dawkins reforms: how can Australia meet the investment needs required to compete at the highest level internationally while funding all universities at the same level? Are there too many universities with similar missions? And if teaching is differentiated from research, what happens to regionally-focused research? The recent government change, from liberal to social-democratic, is likely to affect the nuances around this debate, as one leader wryly acknowledged: it could be “a disadvantage to be ranked too highly” because government may look to spend funding elsewhere.

Japan

“The government wants a first class university for international prestige ... Rankings are becoming important to present Japan attractively and getting good students and good workers as the population declines. That’s the government’s motivation.”

Japan, like many OECD countries, is facing a demographic transformation – declining numbers of prospective HE students and increasing numbers of older people – and a financial crunch at a time when global competition is demanding greater investment. Previously protected by geography, Japan’s universities are facing considerable pressure and urgency to reform and modernise. Since 2000, the government has introduced a series of legislative and policy initiatives to increase institutional autonomy, boost management capabilities, enhance evaluation, emphasise quality, and develop internationally-competitive research via centres of excellence and graduate schools (Oba, 2007). The government hopes these factors will transform higher education, replacing traditional public/private distinctions with differentiation based on market-sensitive profiles.

The reforms have coincided with and are a response to global rankings. There is stiff competition from China, Korea, Singapore and Taiwan – all of whom are investing heavily with the objective of establishing world-class universities. Japan has ambitions to designate about 30 top universities (Yonezawa, 2007), albeit some believe the government will do “what’s necessary” to protect the status of the Imperial universities of Tokyo and Kyoto from other (Asian) competitors.

Internationalisation has become a university and government priority. The government has announced plans to increase the number of international students from 100 000 to 300 000 by 2020 but this strategy is not without its

challenges. Readyng Japanese higher education for an influx of international students means upgrading campuses, and transforming programmes and activities into English – even though over 92% of foreign students come from Asia, of which 60% are Chinese and 15% Korean (JSSO, 2007). Twenty universities will receive additional funding to help establish an international strategy and “strengthen support systems for foreign researchers and students” (MEXT, 2005).

Most universities are focusing on post-graduate activities, usually in science and technology. Institutional flexibility allowed under “incorporation” (introduced 1 April 2004) permits universities to offer distinctive tenure arrangements and salary packages to entice internationally-competitive scholars. At one university, exceptional scholars can earn up to twice their baseline salary based on performance; others are introducing similar initiatives. Knowledge of Japanese is not required because these scholars will teach international or internationally-minded postgraduates.

National rankings, such as the comprehensive *Asahi Shimbun*, are growing in popularity (Yonezawa *et al.*, 2002); a new one focused on teaching is being developed by *Yomiuri* newspaper. While undergraduate students still rely on a combination of local intelligence and entrance scores, rankings are commonly used by middle and low achieving students in contrast to the experience in other countries.

HEIs are becoming more strategic, identifying research strengths and niche competencies, reviewing resource allocation, recruiting international scholars, and adapting their curriculum. There are some differences between older Imperial and newer regional universities. The former have some experience operating and recruiting on the world stage while the latter have waited passively for locally-captive students. Most realise this situation is no longer tenable but the faculty profile may not be conducive to radical or immediate changes. Escalating inter-institutional competition for students, faculty, research funding and sponsorship have already led to the demise of a number of small private universities. There is a strong view that “in order for Japanese HEIs to compete globally, the government will close down some regional and private universities and direct money to the major universities” or that some institutions will become teaching only. The “traditional view, that teaching should be informed by research, is changing”.

National and institutional strategic choices

The relationship between HEIs, national policy and globalisation is a complex one. Are HEIs hapless victims, buffeted by policy decisions, implemented by an equally helpless state, or does globalisation merely open up a “whole array of new opportunities” (Van Vught *et al.*, 2002, pp. 106-107) or is the answer somewhere in-between? According to Kim (*et al.*, 2007, p. 85), despite

changes in governance, national governments continue to have a major role in “defining the main objectives of the higher education system, determining the instruments with which to attain those objectives, and the criteria for assessing the performance of those instruments”. But the processes and events impacting on and influencing both state and institutional behaviour and actions are increasingly competitive, and transcend national borders. The operating environment is shaped, as well as constrained, by a complex dynamic involving global, national and local agents, which Marginson and Rhoades (2002, p. 282, p. 290) call a “glonacal agency heuristic”. Depending upon mission and other factors, HEIs are increasingly transnational or “global actors extending their influence across the world”. Porter’s diamond of “competitive advantage” adds another dimension; by highlighting the critical role of institutional strategy/choice, HEIs are not just acted upon but are knowledge intensive industries sharing characteristics with similar actors (Porter, 1990). There is a menu of possible institutional or enterprise strategies and policy choices that are obscured by the simpler one-dimensional framework. Every HEI strives to develop a distinctive strategy, but each operates within a national and increasingly global higher education system (Hazelkorn, 2005, pp. 112-115). This section examines the interplay between national and institutional strategic options.

Policy options

“What do we need to achieve by 2013? Two universities ranked in the top 20 worldwide” (Cronin, 2006).

“This is the opportunity for more of our universities to emerge as world-class institutions. More of our universities should aim to be within the top 100 internationally and I would like some of our universities to aspire to the top 10” (Bishop, 2007).

Rankings have become an important measure of international competitiveness and national economic strength. Despite SJT’s over-reliance on research indicators or the Times QS’s preference for reputation (arguably another indicator of research), governments and policy makers appear more responsive to global rather than national rankings: “It’s a reputation race/game, and in this – research is sexy. Reputation, unfortunately, is always based on research, ... and research attracts the best talent.”

Rankings are used to underpin government exhortations to be more competitive and responsive to the marketplace and customers, define a distinctive mission, be more efficient or productive, and become world-class.

These trends are apparent, in differing degrees, across the OECD – and so are national responses. Japan and Germany have quite complex and substantially larger HE systems than Australia – 726, 333 and 38 HEIs, respectively. While Australia and Germany are predominantly public systems, Japan has a

substantial private HE sector equivalent to 76.2% of all HEIs, some of which are highly-ranked. Australia has a unified national system while Germany retains a binary system. All three countries face regional and competitive pressures arising from the global knowledge economy and huge investment in research and development elsewhere, especially by China, compounded by worldwide economic crisis and demographic changes. For Japan and Germany the demographic crunch is due about 2015, while Australia faces an immediate skills shortage.

These developments have provoked a wide-ranging debate on higher education and its associated costs. Should research and research training (PhD) investment be concentrated “through much more focussed funding of research infrastructure in [one or two] high performing institutions”, “support for an unspecified number of high performing research intensive universities” or “support for excellent performance, wherever its institutional setting” (Australian Government, 2008)? Two strategies are discernable based on the countries under review:

- The *neo-liberal model* aims to create greater reputational (vertical) and functional differentiation in order to compete globally. Germany and Japan (plus China, France, Korea, Russia,) prefer a small number of world-class universities (10 and 30, respectively), focusing on research performance via competition for Centres of Excellence and graduate schools. This model has 2 forms: one which jettisons traditional equity values (Germany) and one which upholds traditional status/hierarchical values (Japan).
- The *social-democratic model* aims to build a world-class system comprised of a portfolio of horizontally diverse high performing HEIs with a global focus. Australia (plus Ireland and Norway) seeks to balance excellence with support for “good quality universities” across the country, using institutional compacts to drive clearer mission differentiation. This represents a significant policy redirection following the recent government change (Walters, 2008; cf. Bishop, 2007 and Gillard, 2008).

Some issues transcend policy boundaries. Problems associated with uneven or late-development has provoked fears (in Australia and Germany) of the “Matthew Effect” on the assumption that funding is a zero-sum game – unless more resources can be put into the system. Because of the implications for regionalism, widening access and community engagement, the debate is sharpest within the respective social-democratic parties.

Across the OECD, system change is occurring because and regardless of rankings. Many governments have been content to quietly condone the role that rankings have played in accelerating competition. In Germany (not least because of Bologna) and Japan, traditional differences were already withering away. In Australia (plus the United Kingdom), national assessment processes

have effected system change by differentiating between teaching and research institutions. Another strategy – pursued by the new Australian government (plus Denmark) – is to link rankings with institutional contracts or compacts, in much the same way that QA or accreditation criteria might be used to both define/confirm differentiated missions. In these cases, rankings and assessments have become a quasi-funding instrument.

The battle for world-class excellence has fused national and institutional priorities, and transformed global rankings from a benchmarking tool into a strategic instrument. What matters is how different governments prioritise their objectives of a skilled labour force, equity, regional growth, better citizens, future Einsteins and global competitiveness, and translate them into policy. There are direct implications between societal value systems and policy choices, and how they are interpreted by HEIs.

Institutional options

“This strategic plan ... reflects our unswerving commitment ... to transform [xxx] University, within the next 10 years, into a world-class institution that will be ranked among the top 30 leading universities in the world.”

“To be number two – that would be good – and to be among the first ten universities in Germany is also a goal. We are ten or eleven so it differs between the different rankings so that’s a point. So we might reach number five or six ...”

Policy focus on world-class excellence means few HEIs can ignore the fuss associated with rankings. While most HE leaders are quick to say they “are not controlled” by rankings, they are used “as a kind of technique to improve performance ... it’s an ambivalent situation”. Others are more direct: “We analyse these different elements (SSR, publishing papers in English, increase international students, improve peer reputation) ... we talk to the Dean of each school and we also discuss among the Board members. Then we find a method to improve the ranking. So that’s the agenda.”

The most logical response is to identify indicators which are easiest to influence. It is arguable the actions below can be directly attributed to rankings as distinct from normal competitive factors, better professional organisation, quality enhancement or the value placed on science and technology research, but there is a strong correlation between them and specific indicators (see below and Table 1).

The simplest and most cost-neutral actions are those that affect brand and institutional data, and choice of publication or language. Most non-native English HEIs encourage faculty to publish in English-language high-impact international journals, and all ensure a common institutional brand is used on publications. The latter is especially critical for HEIs which have recently merged different

Table 1. **Mapping institutions actions against rankings**

	Examples of actions	Approximate weighting
Research	● Increase output, quality and citations ● Reward faculty for publications in highly-cited journals ● Publish in English-language journals ● Set individual targets for faculty and departments	SJT = 40% Times = 20%
Organisation	● Merge with another institution, or bring together discipline complementary departments ● Incorporate autonomous institutes into host HEI ● Establish Centres of Excellence and graduate schools ● Develop/expand English-language facilities, international student facilities, laboratories, dormitories ● Establish institutional research capability	SJT = 40% Times = 20%
Curriculum	● Harmonise with EU/US models ● Favour science/bio-science disciplines ● Discontinue programmes/activities which negatively affect performance ● Grow postgraduate activity relative to undergraduate ● Positively affect staff-student ratio (SSR) ● Improve teaching quality	SJT = 10% Times = 20%
Students	● Target recruitment of high-achieving students, esp. PhD ● Offer attractive merit scholarships and other benefits ● Propose more international activities and exchange programmes ● Open international office	Times = 15%
Faculty	● Recruit/head-hunt international high-achieving/HiCi scholars ● Create new contract/tenure arrangements ● Set market-based or performance/merit-based salaries ● Reward high-achievers ● Identify weak performers	SJT = 40% Times = 25%
Public image/marketing	● Professionalise admissions, marketing and public relations ● Ensure common brand used on all publications ● Advertise in <i>Nature</i>, <i>Science</i> and other high focus journals ● Expand internationalisation alliances and membership of global networks	Times = 40%

Source: SJT; THE – QS.

organisations/units, each of which carried a separate identity. The aim is to ensure all activity is accurately captured by ranking and benchmarking organisations. After this, the costs rise – potentially exponentially.

Because rankings usually reward (older and) larger comprehensive institutions with a medical school, size does matter. Institutional restructuring, the reorganisation of research, and the creation of research institutes and graduate schools is common across higher education. Recent changes to the SJT aim to control for size but this has not affected this trend. The bio-sciences are favoured because their activity is best captured in internationally, publicly-available and verifiable data bases, *e.g.* Skopus or Thompson ISI. Many HEIs are developing/expanding English-language

facilities and capacity through the recruitment of international scholars and students; improving marketing and hence peer knowledge of the institution through expensive/extensive advertisement features, e.g. in *Nature*, glossy brochures or marketing tours; rewarding faculty and PhD students who publish in highly-cited journals; and seeking to positively affect the staff-student ratio. Institutions everywhere are preoccupied with recruiting more high-achieving student numbers, preferably at PhD level who like international scholars will be assets in the reputation.

Devising a coherent and successful strategy is the result of a complex set of choices. HEIs are torn between putting resources into revising the curriculum or building up research. Should the organisation be reconfigured, and if so how? What is the best way to organise processes and structures to improve quality, academic performance, visibility and/or efficiency? Should the emphasis be on recruiting high-achieving or HiCi (ISI Highly Cited) faculty with attractive salaries and benefits or helping develop existing faculty – and if focus is on the former, do we risk alienating or demoralising the latter? Should rankings be used to help improve our strategic planning or define our targets? Should we merge with another institution or re-organise our own institution? How much do we have to spend? How much can we afford to spend?

Conclusion

As knowledge has become the key barometer of international competitiveness, global rankings have emerged to measure participation in world science by the number of HEIs or discipline/departments among the top 20, 50 or 100. Because “national pre-eminence is no longer enough” (University of Warwick, 2007), an internationalist strategy is now imperative for governments, and international-facing and regionally-focused HEIs. The accelerating pace of this “arms race”, with its continual “quest for ever increasing resources” (Ehrenberg, 2001), leaves no one immune and poses major policy challenges for national governments and higher education.

HEIs have become strategic enterprises, using rankings to help define targets and set goals. Despite context differences – political regime, history, mission and geography – there are remarkable similarities between how different types of institutions in Germany, Australia and Japan are responding, the decisions they are making and the reasons why. It is clear that rankings are encouraging and influencing the modernisation and rationalisation of institutions, the professionalisation of services and marketisation of higher education, the research mission and fields of investigation, curriculum and disciplines, faculty recruitment and new career/contractual arrangements, and student choice and employment opportunities. As global competition intensifies and demographic changes shrink the number of (traditional) students, rankings help build brand awareness.

Rankings are also transforming the way HEIs liaise and collaborate with each other, moving beyond exchange programmes to global networks. Greater institutional autonomy, and for some financial independence, means HEIs are choosing to benchmark themselves against peers in other countries, and forge consortia through which research and programme development can occur. While some HEIs vie for high rank, for many others just being mentioned is beneficial – the more visible, the more attractive they are to potential consumers, whether they be students, prospective faculty, philanthropists, employers or other HE partners. Critically, even HEIs which are not globally ranked are affected/infected by the rankings obsession. They are concerned about being ignored, marginalised or by-passed. Public opinion, as expressed and disseminated via the media, can be especially cruel: the “local newspapers write that local government should not spend more money for our university”.

Globalisation is bringing about greater convergence, but HEIs are fixtures of their state and national policy – and their (re)actions reflect those ambitions and value systems. In many instances, rankings are used as a policy instrument to direct or inform initiatives or as a quasi-funding mechanism. A common approach is to concentrate resources in a small group of elite universities which can compete head-to-head with top ranked US institutions. Size matters in this strategy; many government initiatives are aimed at encouraging mergers between institutions, or between institutions and other autonomous agencies, *e.g.* research institutes or hospitals. But there are alternative policy options as the case studies reveal.

Today politicians and other leaders proclaim national ambitions based upon a particular rank. While the initial frenzy may have passed, cross-national comparisons are an inevitable legacy of rankings and outcome of globalisation. They are creating a sense of urgency, accelerating the pace of reform and incentivising institutional behaviour. Some of these changes can be viewed as part of the broader modernisation agenda, improving performance and public accountability while others are perverse, *e.g.* reshaping/realigning academic priorities and research to match indicators, and recruiting only high-achieving students.

Because rankings and similar benchmarking assessments do influence institutional behaviour and performance, policy matters. Governments need to balance the objectives of helping institutions improve performance and quality; drive research excellence; provide better and more transparent information to students, potential students and the public; engender investor confidence to the public/taxpayer; provide the basis for evidence-based policy making; and create more transparency of diversity. The challenge is balancing excellence in world science (including the arts, humanities and social sciences) with a world-class higher education system – accessible to the

widest number of people – rather than simply building world-class institutions. Using (global) rankings as the benchmark only makes sense if the indicators are appropriate – otherwise, governments and institutions risk transforming their system and institutions to conform to metrics designed by others for other purposes.

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The author:

Ellen Hazelkorn

Director of Research and Enterprise, and Dean of the Graduate Research School
Higher Education Policy Research Unit (HEPRU)

Dublin Institute of Technology

143 Rathmines Road

Dublin 6

Ireland

E-mail: ellen.hazelkorn@dit.ie

Notes

1. This paper draws on two inter-related studies and approaches. An international online questionnaire was distributed to the members of IMHE and IAU from June to September 2006 asking about the impact and influence of rankings on their decision making and on higher education. Of the 639 people/institutions contacted, responses were received from 202 institutions, representing a 31.6% response rate. During 2008, interviews were conducted with an indicative sample of HEIs and stakeholders in Australia, Germany and Japan. This study was undertaken under the auspices of the IHEP, IMHE and IAU. In total, 29 organisations were visited and 75 interviews conducted. All phases of the work conformed to the DIT Research Ethics policy.
2. Unattributed quotations are from participants from the 2006 or 2008 study. They were guaranteed anonymity given the sensitivity of the issues involved. No reference is given to country or institutional type except in a general way.

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What's the Difference? A Model for Measuring the Value Added by Higher Education in Australia

by

Hamish Coates

Australian Council for Educational Research (ACER), Australia

Measures of student learning are playing an increasingly significant role in determining the quality and productivity of higher education. This paper evaluates approaches for estimating the value added by university education, and proposes a methodology for use by institutions and systems.

The paper argues that value-added measures of learning are important for quality assurance in contemporary higher education. It reviews recent large-scale developments in Australia, methodological considerations pertaining to the measurement and evaluation of student learning, and instruments validated to measure students' capability, generic skills, specific competencies, work readiness and student engagement.

Four approaches to calculating value-added measures are reviewed. The first approach computes value-added estimates by comparing predicted against actual performance using data from entrance tests and routine course assessments. In the second approach, comparisons are made between outcomes from objective assessments administered to cohorts in the first and later years of study. Comparisons of first-year and later-year students' engagement in key learning activities offer a third and complementary means of assessing the value added by university study. Feedback on graduate skills provided by employers is a fourth approach which gives an independent perspective on the quality of education.

Reviewing these four approaches provides a basis for their synthesis into a robust and potentially scalable methodology for measuring the value added by higher education. This methodology is advanced, along with its implications for instrumentation, sampling, analysis and reporting. Case studies are presented to illustrate the methodology's potential for informing comparative analyses of the performance of higher education systems.

Quelle différence ? Un modèle pour mesurer la valeur ajoutée de l'enseignement supérieur en Australie

par

Hamish Coates

Australian Council for Educational Research (ACER), Australie

L'évaluation des connaissances acquises par les étudiants est désormais un outil indispensable pour déterminer la qualité et la productivité de l'enseignement supérieur. Ce rapport examine les différentes approches permettant d'évaluer la valeur ajoutée de l'enseignement supérieur et propose une méthode utilisable à la fois au sein des établissements et à l'échelle des systèmes d'enseignement supérieur.

L'idée centrale qui sous-tend ce rapport est la suivante : la mesure des acquis des étudiants est l'un des piliers de l'assurance qualité au sein des systèmes d'enseignement supérieur modernes. L'auteur passe ainsi en revue les tendances majeures observées récemment en la matière en Australie, analyse les problèmes méthodologiques inhérents à la mesure et à l'évaluation des acquis des étudiants, et enfin étudie les instruments couramment employés pour mesurer les capacités, les compétences génériques et spécifiques, l'aptitude au travail et l'implication des étudiants.

Quatre méthodes de calcul de la valeur ajoutée sont ainsi passées en revue. La première consiste à estimer cette valeur ajoutée en comparant les performances escomptées et les performances réelles des élèves, à l'aide des résultats des tests d'admission et de ceux des évaluations réalisées en cours de cycle. La deuxième approche compare les résultats d'évaluations objectives d'étudiants pour chaque année d'étude (première année et suivantes). La troisième méthode utilisée pour évaluer la valeur ajoutée de l'enseignement secondaire, de nature complémentaire, consiste à comparer l'implication des étudiants dans certains modules d'apprentissage clés durant la première année et au cours des années suivantes. Enfin, la quatrième méthode étudiée envisage la qualité de l'enseignement supérieur selon une perspective différente, puisqu'elle tient compte des retours d'expérience de certains employeurs sur les compétences des jeunes diplômés.

L'examen de ces quatre approches permet ensuite de les synthétiser et d'obtenir une méthode fiable, pour évaluer la valeur ajoutée de l'enseignement supérieur, ladite méthode consolidée offrant en outre le potentiel de s'adapter à différentes échelles. Il s'agit d'une approche sophistiquée, aux implications complexes en termes d'instrumentation, d'échantillonnage, d'analyse et de présentation des résultats. Une série d'études de cas permet à l'auteur de démontrer le potentiel offert par cette méthode, pour étayer l'analyse comparative des performances de différents systèmes d'enseignement supérieur.

An evidence-based perspective on higher education quality

The economic and social role of higher education has expanded and diversified rapidly over the last 20 years. Flowing from this is an increased need from government, university leaders, business, students and the public for more focused information on whether graduates have the capabilities required to engage productively in the global knowledge economy. The perspective driving this paper is that, as affirmed by the OECD's Assessment of Higher Education Learning Outcomes (AHELO) (OECD, 2008a), this need will doubtless grow in an expanding and increasingly competitive higher education environment.

Yet our understanding of the learning outcomes of higher education, and of the difference that a university education makes, is limited. In Australia as in many countries, conversations about higher education quality have expanded over the last 20 years beyond institutional resources and reputations to include teaching processes and institutional supports. But there is a surprising lack of information and emphasis on learning processes and outcomes. Capturing and using generalisable measures of learning in quality improvement and accountability calculations requires sophisticated methodology. But as our understanding of measurement and evaluation methodology unfolds, it is critical to develop more sophisticated approaches for managing and improving the quality of higher education.

To this end, this paper discusses four approaches for measuring the value that higher education adds to individual students and their communities. The first approach calculates change by comparing students' expected against actual university performance. The second uses assessments of first- and later-year student performance to estimate learning gains. The third approach assesses the extent to which students are engaging in productive learning activities. It is argued that the fourth approach, employer feedback, provides an independent and highly valuable perspective on the outcomes of student learning.

It is proposed that these approaches, which are illustrated by current developments in Australian tertiary education, provide complementary means for estimating the value that has been added by higher education to students' learning and development. Having considered each, the paper investigates their contribution to a robust and potentially scalable methodology for monitoring educational quality. This methodology, which is ambitious in nature, is detailed in terms of its implications for instrumentation, sampling, analysis and

reporting. Consideration is given to its relevance to studies such as the OECD's AHELO. This model does carry controversial implications, and concluding remarks focus on the likelihood of change in quality assurance activities and hence in educational policy and practice.

As noted, a distinguishing feature of the approaches explored in this paper is that they provide direct or very sound proxy measures of student learning outcomes. This is important, as it moves our focus beyond resources and teaching – the focus of most quality indicators in Australian higher education (Coates, 2007b) – and emphasises what students themselves are doing and achieving. So far, in Australia as in most other countries, quality assurance has involved a considerable amount of data collection *from* students, but little collection of data *about* students and their learning. A shift in focus towards student-level outcomes is important as quality processes may increasingly be assumed, as it becomes more strategically important for countries to assure the competence and capability of highly trained individuals (James, 2003; The Economist, 2006), and as outcomes data are seen to offer more pointed insight for monitoring the standards and risks of educational provision.

These data collections, and the integrated methodology, offer “evidence-based” approaches to quality assurance, a position that needs brief qualification. In general, “evidence-based” implies forms of professional practice based on data collected using scientific methods. When carefully designed and collected such data provide a robust foundation for professional diagnosis, decision making and action. This implies a certain way of thinking that can play out in practice in various ways. Evidence-based management can denote senior executives making decisions based on data about the quality of provision. It may also involve academic staff using locally collected data to analyse student performance and to help target teaching and support. In education it should, as advanced in this paper, involve analysis of students’ learning processes and outcomes.

Of course the merit of evidence-based practice hinges on the relevance and validity of the data on which decisions are made. This can be more problematic in education than in other professions, as teaching and learning can be difficult to define, measure, analyse and report, particularly in ways that are generalisable across fields of study, let alone across institutions or countries. Not all that counts can be easily measured, and not all that is measured necessarily counts. This area is complex, and has been explored in a range of recent analyses (see, for instance: Coates, 2007a; Nusche, 2008; Dwyer *et al.*, 2006; Millett *et al.*, 2006; Millett *et al.*, 2008). With such complexities in mind, a considerable amount of work has been done to develop the collections described in this paper as valid, authoritative, relevant, efficient and timely measures that hold weight across diverse contexts.

As the title suggests, this paper emphasises the importance of assessing the value added by university education (Saunders, 1999; Meyer, 1997). Measures of absolute performance are important as they provide information on graduate capability. They do not, however, index the growth in student learning that may be attributed to an educational process. Analyses of the value added by education offer a powerful means to identify the efficacy of an educational transformation. Education may be considered to add value if, while controlling inputs, it produces a gain in student learning that is statistically above expectation. Of course, it may also be of interest to consider the absolute gains in student learning, the simple difference between outcomes and inputs, as well as those which are above or below expectation.

Approaches for measuring outcomes and change

Comparing expected against actual performance

In 2008, the Australian Government Department of Education, Employment and Workplace Relations introduced a pilot programme of the national student Aptitude Test for Tertiary Admission (DEEWR, 2008). This programme included funding for an evaluation of the criterion validity of uniTEST, an aptitude test managed by the Australian Council for Educational Research (ACER and Cambridge Assessment, 2008). The evaluation (Coates et al., 2008a) examined the extent to which uniTEST correlated both with alternative concurrent measures used for university entrance and with performance in the first year of study. This latter evaluation involved analysis of the predictive validity of the instrument.

uniTEST has been developed to assist universities with the often difficult and time-consuming processes of student selection. The test is designed for use with school leavers to complement the existing achievement-oriented measures that form the basis of many selection decisions. uniTEST assesses the kinds of generic reasoning and thinking skills that underpin successful higher education study. It provides measurement of quantitative and formal reasoning, critical reasoning, and verbal and plausible reasoning. Reasoning is assessed in familiar and less familiar contexts and does not require subject-specific knowledge. The instrument is designed to estimate individual capability with known and appropriate levels of precision.

While not the primary purpose of the instrument, or of the 2008 validation, objective measures of individual aptitude provide a basis for estimating subsequent performance. Hence, they provide an inferential foundation for estimating the value added by university study.

In addition to a robust baseline measure, it is necessary to have measures of actual student achievement that are gathered after a period of university study. These are routinely collected through ongoing assessment activities.

Such assessments vary greatly both within and across institutions, however, and even within similar fields of education. While there are many pockets of excellence, knowledge and skills are often measured using uncalibrated tasks with unknown reliability and validity, scored normatively by different raters using unstandardised rubrics. In addition, the rubrics themselves are often applied with little moderation, adjusted to fit percentile distributions which are often specified *a priori* by departments, faculties or institutions.

Such limitations aside, these data allow for the value added by a course of study to be assessed statistically by comparing predicted with actual measures of individual performance. Performance above expectation suggests value-added growth. Performance below expectation indicates that less value has been added than expected. As noted earlier, a comparison of the simple difference between entrance scores and routine assessment results would also illuminate patterns of learning across an institution.

In addition to any assessment of value added by university study, baseline data on individual ability might also be used by an institution to monitor, scale or even moderate grade distributions across an institution. Such work is undertaken routinely in three senior secondary systems in Australia (VCAA, 2008; QSA, 2008; ACT BSSS, 2008). In such an analysis, individual performance that is above expectation could be taken to indicate larger gains made through university education. When performance is above expectation for a whole group, however, this may indicate grade inflation or that assessment tasks are too easy. If so, adjustments may then be made for risk management purposes so as to assure the quality of data used for quality assurance decisions.

Assessing change in performance across years

The quality of university education may be examined by comparing objective assessments of first-year and later-year students' performance and potential. In the simplest scenario, this might involve analysis of routine student assessment data. A first-year grade point average, for instance, might be compared against a third-year grade point average. This approach is attractive as it involves the use of extant data already embedded in the teaching and learning cycle. The limitations of the approach, however, stem from uncertainties associated with the psychometric properties of routine assessment data, and whether the assessments have been assured by the educational processes that they are being called upon to evaluate. It is possible that the reliability of the process could be enhanced by including common and psychometrically validated items across examinations. Without such supplementation, the process is not grounded by an objective assessment of student competence or capability.

A preferable approach, therefore, involves making comparisons between two psychometrically validated and linked assessments. Data from such assessments provides points of reference from which value-added estimates can be derived. This requires assessment of first- and later-year students, either of the same students as they progress through a course of study, or of a later-year matched cohort of students. The assessments might focus on competencies and capabilities that are considered to be more “generic” in nature. Alternatively, they might focus on broad discipline-specific knowledge or skills, such as on reasoning in the biological, mathematical or social sciences, in business, in general studies, in engineering or in the humanities. Recently in Australia, for instance, a concept design has been completed for a national Tertiary Engineering Capabilities Assessment (Coates and Radloff, 2008).

The latter approach, involving the use of standardised assessments as opposed to routine assessment data, has been more commonly used in Australia. This is perhaps surprising, given the large amount of routine assessment data available to institutions. In Australia, this approach was seeded during development of the Graduate Skills Assessment (ACER, 2001) which measures written communication, critical thinking, problem solving and interpersonal understandings. The Collegiate Learning Assessment (CAE, 2008) has been used in this context in the United States, again to measure generic capabilities which are core components of a university education.

The measurement of generic competencies is important, but there is value too in focusing on phenomena that align with an institution’s specific mission. In 2008, for instance, one Australian university piloted a Work Readiness Assessment Package designed to measure students’ work-, career- and future-readiness (Coates and Edwards, 2008). This involved assessing a spectrum of constructs, from basic competencies such as numeracy and literacy, to job searching, workplace reasoning and career management, through to how students position themselves professionally in the changing world of work.

As detailed above, statistical comparison against learning data collected at two points in time can be used to derive estimates of individual growth against expectation, or the value added by university study. In addition to use in quality assurance determinations, results from such assessment can be reported on the transcripts that are provided to students on graduation, benchmarked as necessary by level of qualification and field of education. They also provide a foundation for drawing inferences about the quality of students’ achievement. As with the previous approach, they furnish independent evidence that can be used to assure the quality of routine student assessment.

Measuring student engagement

“Student engagement”, defined as students’ involvement with activities and conditions likely to generate high-quality learning (NSSE, 2008; Coates, 2005, 2006, 2008a), is increasingly understood to be important for high-quality education. The concept provides a practical lens for assessing and responding to the significant dynamics, constraints and opportunities facing higher education institutions. It provides key insights into what students are actually doing, a structure for framing conversations about quality and a stimulus for guiding new thinking about good practice.

Student engagement is an idea specifically focused on learners and their interactions with university. The idea touches on aspects of teaching, the broader student experience, learners’ lives beyond university and institutional support. The concept of student engagement is based on the premise that learning is influenced by how an individual participates in educationally purposeful activities. It operationalises research that has identified educational practices which are linked empirically with high quality learning and development (see, for instance: Astin, 1979, 1985, 1993; Pace, 1979, 1995; Chickering and Gamson, 1987; Pascarella and Terenzini, 2005). While students are seen to be responsible for constructing their knowledge, learning is also seen to depend on institutions and staff generating conditions that stimulate and encourage involvement. Learners are central to the idea of student engagement, which focuses squarely on enhancing individual learning and development.

Surprisingly, given its centrality to education, information on student engagement has not been readily available to Australasian higher education institutions. The Australasian Survey of Student Engagement (AUSSE) (ACER, 2007), conducted with 25 institutions in 2007 and 29 in 2008, provides data that Australian and New Zealand higher education institutions can use to engage students in effective educational practices. The AUSSE builds on foundations laid by the US National Survey of Student Engagement (NSSE, 2008). By providing information that is generalisable and sensitive to institutional diversity, and with multiple points of reference, the AUSSE plays an important role in helping institutions monitor and enhance the quality of education.

The AUSSE involves administration of the Student Engagement Questionnaire (SEQ) to institutionally representative samples of first- and later-year students. The SEQ measures six facets of student engagement (Academic Challenge, Active Learning, Student and Staff Interactions, Enriching Educational Experiences, Supportive Learning Environment, Work Integrated Learning) and six outcomes (Higher Order Thinking, General Learning Outcomes, General Development Outcomes, Average Overall Grade, Departure Intention, Overall Satisfaction), and provides a foundation for analysing change over time. Although these are not assessments of value

added in the statistical sense, examining change across year levels provides insight into the extent to which people are being challenged and pushing themselves to learn. An increase in engagement in active learning practices, for instance, indicates that learners are investing more time constructing new knowledge and understanding. It also indicates that learners are intrinsically more engaged in their work, and hence more likely to be developing their knowledge and skill.

In 2008, ACER also piloted the Staff Student Engagement Survey (SSES) as a complement to the student data collection. The SSES is a survey of academic staff about students, which builds on the foundations set by the Faculty Survey of Student Engagement (FSSE, 2008). The Staff Student Engagement Questionnaire measures academics' expectations for student engagement in educational practices that have been linked empirically with high quality learning and development. Data is collected from staff, but students remain the unit of analysis.

Compared with student feedback, relatively little information from academic staff is collected in Australasian higher education. The SSES builds on processes developed in recent surveys of staff and leaders (Coates *et al.*, 2008b; Scott *et al.*, 2008). Information from staff is important, as it can help identify relationships and gaps between student engagement and staff expectations, and engage staff in discussions about student engagement and in student feedback processes. It can also provide information on staff awareness and perceptions of student learning and enable benchmarking of staff responses across institutions.

In summary, the AUSSE provides information about students' intrinsic involvement with their learning and about the extent to which they are making use of available educational opportunities. As such, it offers information on learning processes, is a reliable proxy for learning outcomes and provides diagnostic measures for learning enhancement activities. Comparisons between year-level estimates, and between student and staff results, provide insight into differences which may be associated with university education. Such information is a powerful means for driving educational change.

Recording employer satisfaction

Graduate employers are important stakeholders in tertiary education who have the capacity to offer independent information on the quality of student outcomes. Surprisingly, this relevance is not generally reflected in formal quality monitoring activities. In Australia, a large amount of data is collected on learners and educational providers. Considering employers' relevance to education and the lack of available data, there would appear to be much value in collecting data from these stakeholders for use in quality assurance activities.

A model for collecting data from employers associated with tertiary institutions was developed in Australia in 2006 and 2007 for national deployment in 2008. Three “Quality Indicators” were developed to underpin a new outcomes-focused and evidence-based approach to monitoring quality in Australia’s vocational education and training system (PhillipsKPA, 2006; Coates and Hillman, 2007; NQC, 2007). “Employer satisfaction” was defined as one of the three indicators, the others being “learner engagement” and “competency completion”. Instruments and collection systems were developed to assist organisations to collect data in each of these areas.

After design and national validation (Coates and Hillman, 2007), the Employer Questionnaire (EQ) was developed to measure three domains (training quality, work readiness and training conditions) and the following sub-scales: trainer quality, overall satisfaction and the effectiveness of assessment, training relevance and competency development, training resources, and the effectiveness of support. The EQ is designed to support training organisations to collect data from employers on the quality of education and, more generally, to enhance relationships between education providers and this key stakeholder group.

While the EQ instrument and associated collection systems were developed for use by vocational rather than higher education providers, there is, as noted, an important need for such feedback in higher education. Given the increasing economic importance of higher education to the global knowledge economy, it is difficult to see why and how employer perspectives could not become more valued. Employers see graduates in context and are in a unique position to assess their capability and performance. Further, it is likely that many of the same phenomena might be measured in higher education as in more vocational types of training, including employers’ perceptions of teaching quality, graduates’ work readiness and educational conditions.

It is unlikely that feedback from employers could be used in isolation to assess change in learner competence that results from university study. Employers could assess whether a graduate has reached a required level of proficiency, and hence whether sufficient learning growth has occurred. Without information on learner capability prior to study, however, it would not be possible to isolate change due to an educational process. To identify change, employers would need to assess learners at the start and end of their higher education, an uncommon arrangement in many qualifications and fields. It is possible, however, that change over time could be registered at the institution level. Employer feedback on graduates could be compared across areas within an institution, for the institution over time or against cross-institutional points of reference (Coates, 2007c). Each of these approaches would enable statistical calculation of performance against expectation, and hence the value added by university study.

A model for assessing change

The approaches considered above exhibit key qualities of a robust and potentially scalable model for measuring the value-added contribution of higher education. Key instrumentation, sampling, analysis and reporting characteristics of this model are detailed below. Much of the methodology that underpins this model is generalised from the Programme for International Student Assessment (PISA) (OECD, 2005a). The PISA methodology has been rigorously developed and tested at an international level, and key aspects of its structure and detail could be sustained and adapted for higher education in a project such as the OECD's AHELO study (OECD, 2008a).

As with PISA's model, data should be collected from a range of sources and be centred around the assessment of student learning. Working from the OECD INES framework (OECD, 2005b), an assessment framework could be developed that specifies the learning outcomes and contextual themes to be assessed, and provides a basis for specifying constructs and generating items and instruments (see, for instance: OECD, 2005a). The development of such a framework would, in itself, likely advance conversations about quality assurance. In Australia, for instance, the most recent systematic definition of performance indicators for higher education is nearly two decades old (Linke, 1991; Coates, 2007b).

Development of this framework is beyond the scope of this paper, which instead proposes that data from employers, staff and learners can underpin indicators of learner engagement and outcomes which, in turn, can be used to calculate estimates of outcomes and added value. This approach has desirable methodological properties, including that it allows for triangulation among a manageable number of elements, focuses on important aspects of education, and contains indicators that are both robust and responsive to change. While it does carry the implication of requiring new data, this may be an unavoidable consequence of any shift towards outcomes-focused quality assurance, and such data would offer direct ancillary benefits to providers.

Student assessments, as detailed above, could focus on generic capabilities relevant to individuals work- and career-readiness, as well as on discipline-specific forms of reasoning such as engineering capability (Coates and Radloff, 2008). The disciplinary focus is important for establishing the validity and relevance of the assessment instruments and results. These instruments need to be designed and developed in rigorous and consultative ways and involve item preparation, panelling, cognitive interviewing, consultation, pilot testing, expert review, translation and composition into rotated or modular forms (OECD, 2005a). The instrumentation may be varied depending on whether the assessment was undertaken prior to or at the start of university study. As discussed, a role might be played by routine student assessments, either in

terms of providing data for the calculation of added value, or in terms of using objective assessment data to monitor assessment results.

A series of psychometrically linked questionnaire instruments would be required in addition to the objective tests to collect context data from students, staff and employers. These might follow, or be based on the Student Engagement Questionnaire, Staff Student Engagement Questionnaire and Employer Questionnaire outlined above. They could capture data on student engagement, staff perceptions of students' engagement and outcomes, and employers' perspectives on student outcomes. Collection of data from students, staff and employers would enable triangulation of results, identification of process factors that managed to drive educational change, and the multi-level analysis of pedagogical, institutional and environmental effects. It would also play the important role of engaging these stakeholders directly in institutional assessment processes and hence in quality monitoring and improvement.

A sample design would be needed that is both generalisable across institutions and also sensitive to organisational and systemic diversity. Sampling methodology has developed considerably in the last few decades, with stratified and multistage cluster designs used routinely in large-scale studies of school achievement (Kish, 1965; Ross, 1992, 1999; OECD, 2005a). Despite such progress in sampling, the census is by far the most common means of collecting data from university students in Australia. In certain contexts, a census may offer a scalable approach for collecting data in different educational and organisational contexts. Yet a census can lead to inefficient use of resources, waste respondents' time, and produce results with unknown levels of reliability and precision. As data-driven quality assurance becomes more important in higher education, it is necessary to leverage sampling methodology into this operating context. Complex sample designs are required that are feasible and more efficient to implement, sensitive to the phenomena being measured, and methodologically robust.

The assessments outlined in this paper help identify key attributes of a robust and generalisable approach. To begin, target populations of institutions, staff, employers and students would need to be carefully defined. This involves specification of the desired population and of excluded elements. A generic sampling frame would need to be specified that contains all elements required for consistent specification of target population, stratification and weighting. In many if not most cases, lists of students, staff and employers will be held by, and perhaps only by, individual institutions. The frame specification needs to provide a basis for aggregating this information in comparative and contextually meaningful ways. It needs to be possible, for example, to identify students who are "full-time and campus-based in their first-year of an engineering bachelor degree".

The sampling procedure would need to be probabilistic in nature and designed to select a sufficient number of students into the study to generate powerful and representative statistical estimates at the institutional level. While institutions or fields of education would be the “level of analysis”, students rather than teachers, staff or institutions would be defined as the primary “unit of analysis”. Certain analyses may focus on instructional or organisational factors, however the design would need to be specified to provide information on individual students’ learning interactions and outcomes. It would likely need to be multistage and involve the sampling of institutions, employers, staff and students. Implicit and explicit stratification should be used to enable different sampling designs to be applied for different parts of the population and improve the representativeness of the sample and hence accuracy of results. As with PISA (OECD, 2005a), while it is likely that a series of generic strata could be defined, these would need to be varied to suit the contours of different institutions and systems. Sampling students in clusters may be efficient in various contexts, but in many institutions it may be equally or more feasible to sample students, staff and employers randomly from across the institution. The size of the samples would hinge on technical considerations, the implications of any clustering and oversampling, institutional characteristics, and reporting considerations.

Analysis, as with instrumentation and sampling, needs to be carefully designed and aligned with the aims of the assessment. Advanced psychometric procedures need to be used to validate and produce scores for composite variables, account for any item sampling that underpins linked rotated forms of the assessment instruments, produce item statistics for equation of scores across time and contexts, facilitate analyses of bias, and calibrate benchmarks or thresholds of increasing performance on the variables being measured. The mixed co-efficients multinomial logit model (Adams *et al.*, 1997; Wu *et al.*, 1997) has been developed for such analysis and is used routinely in educational assessments.

It is vital that the statistical methods used account for the psychometric, distributional and structural properties of the data. Assessing the value added by educational processes is methodologically and educationally complex. Regression models that enable calculation of growth estimates, make appropriate adjustments for individual demographics and educational contexts, and account for any cohort effects and implications from sampling need to be specified. Multilevel modelling may be required, depending on the extent of clustering in the observations.

Well-designed reporting plays a critical role in ensuring that assessment results drive effective educational change. A suite of reports are required, including for institutions, groups of institutions, fields of education and individual students. Each of these reports must be technically robust and at

the same time presented in informative formats. Scaled change and outcomes scores should be reported, as appropriate, to provide normative baseline data for tracking improvement and drawing cross-group comparisons. To generate change in routine educational practice, however, it would be critical to report results in terms of the criterion referenced benchmarks produced during psychometric calibration of the items and scales. This would make clear to students and teachers what levels of competence are tied to different grades.

Other aspects of the overall approach would, of course, require careful consideration in addition to those canvassed here. Key constraints and scope limitations would be essential to analyse. Cultural and linguistic translation, field operations, coding and data management, and quality monitoring, for instance, all play important roles in ensuring that assessment processes and outcomes are robust (OECD, 2005a, Coates *et al.*, 2006).

A key feature of this model is its complementary relevance to both institutions and systems. While operationalised in ways that reflect the local needs of institutions, the methodology can be scaled to a system level by being replicated across multiple institutions. The capacity for such generalisability stems from the rigor of the underpinning conceptual framework, the calibration and management of items and instruments, the scientific sampling design, the triangulation among a suite of indicators, and the application of item response modelling to produce standards-referenced scores and reports. Such linkage, which has the educationally powerful potential to connect everyday practice with system-level reporting, is contingent on the implementation of appropriate processes for monitoring and assuring quality.

Forecasting change in quality assurance practice

Together, the four specific approaches advanced in this paper and the overall assessment model emphasise new thinking about quality assurance in Australian higher education, if only through their explicit focus on student learning and development. The application of these approaches in Australian universities is important, as it flags innovative ways for institutions to measure and verify what their students have learned. Each of the four approaches provides institutions with empirical foundations for drawing inferences about the quality of higher education. They provide concrete data that moves beyond prevailing metrics, which focus on graduation rates and subjective measures of student satisfaction with service provision.

The relevance of these new developments, while in their relatively early days, will depend on the extent to which they shape institutional policy and, more importantly, educational practice. Universities and higher education systems evolve slowly and in complex ways but several trends would appear to be driving change more rapidly in this area.

The first of these trends is an increasing emphasis on evidence-based and outcomes-focused approaches in formal quality assurance activities. Spellings (2006), the OECD (2008b) and Callan *et al.* (2007) highlight such trends internationally. The direction is emphasised in Australian tertiary education by policy papers released by the Australian Universities Quality Agency (AUQA, 2007) and, in terms of vocational education, by the National Quality Council (NQC, 2007). The capacity to measure the value that has been added by university study is embedded within such discourse. Of course, this trend follows developments in school education over the last few decades, which have culminated in collections such as PISA (OECD, 2008b) and Trends in International Mathematics and Science Study (IEA, 2007).

In many respects, this first trend reflects more a general overarching need for objective evidence on the quality of institutional provision and on student outcomes. In Australia, aside from administrative data on student enrolment and completions, the quantitative data used in quality assurance determinations is overwhelmingly derived from students' perceptions of the quality of teaching and institutional services (Coates, 2007b). While important, such information provides only an indirect and subjective proxy measure of the quality of student learning. Objective assessments, even if of more "generic" rather than discipline-specific phenomena, provide much more direct and robust information and, further, can be used to moderate or monitor routine assessments. Of course, data from routine assessments could be factored into quality assurance considerations.

A further driver of change is the need for greater diversification in the data that are collected by institutions for quality assurance purposes. Australian institutions have developed sophisticated means of capturing feedback on student satisfaction over the last few decades, which has driven important changes in practice. But subjective information on student satisfaction provides just one perspective on education (Coates, 2008b). With a more complex and integrated role in contemporary society, and more differentiation between individual institutions, comes a need for more diversified, robust and educationally significant information. As the widespread adoption of the Australasian Survey of Student Engagement (ACER, 2007) suggests, institutions need data that help shape understanding of the student and industry markets in which they operate.

The ideas sketched in this paper are important and ambitious. As noted at the start, as our understanding of university education and evaluation methodology unfolds, it is critical to consider more effective approaches for managing and improving the quality of higher education. The proliferation of university league tables in recent years and their attraction as a source of information on quality, despite often serious limitations in methodology (Hazelkorn, 2007; Locke *et al.*, 2008; OECD, 2008c), underline the need for more

evidence-based approaches, and for more rigorous methodology. While the challenges are not small, the successful testing of pertinent methodologies at institutions offers promise, as does the tradition of large-scale studies of student achievement in school-level education (Husén, 1996; Schleicher, 1994).

It is essential that academics and institutions themselves take the lead in developing this area of higher education. This is not just because most institutions have the authority to accredit their own programmes and ensure academic standards and underpinning quality assurance processes. Rather, it is vital that progress in the measurement of student outcomes and added value builds rather than breaks the link held by teachers and institutions between the development, dissemination and assessment of knowledge. It is important that any new measurement of student learning and development is itself collaborative in nature, given the broader individual, social and economic roles such measures will play.

The capacity to measure the value added by university education – the difference that it makes – hinges on the provision of robust measures of learner capability and performance. Evidence-based quality assurance requires data that can be used to target enhancement and improvement activities. Such evidence-based approaches are required as institutions grow and diversify, and as it becomes less feasible and even less effective to support all areas of provision. A data-driven approach helps identify areas of risk, target limited resources, focus improvement activities and monitor change. It offers insight for identifying areas of good practice. The perspective driving this paper is that such practice will doubtless grow in an expanding and increasingly competitive higher education environment.

The author:

Dr. Hamish Coates
Principal Research Fellow
Australian Council for Educational Research (ACER)
19 Prospect Hill Road
Camberwell
3142 Victoria
Australia
E-mail: coatesh@acer.edu.au

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Defining the Role of Academics in Accountability

by

Elaine El-Khawas

George Washington University, United States

The policy debate on accountability in higher education has been vigorous in many countries, but it has focused primarily on broad objectives or approaches. Limited attention has been paid to the mechanisms by which universities would implement accountability objectives and to the critical role of academics in developing ways to assess learning outcomes. Yet, giving members of the professoriate a central role in accountability is vital: implementing accountability requires decentralised implementation linked to the differing circumstances of study fields and levels. Academics must be involved in a sequence of tasks – developing assessments, testing and refining them against new evidence, making sense of accountability results, and responding with changes in programmes or delivery.

This paper outlines a process showing how universities and other tertiary institutions could develop and use outcome measures for student learning. It also recognises that professional and disciplinary associations (e.g. business, education, chemistry, literature and social welfare), nationally and internationally, could contribute to these developments in their specialty fields.

En quoi les professeurs de l'enseignement supérieur peuvent-ils contribuer à « responsabiliser » leurs établissements ?

par

Elaine El-Khawas

George Washington University, États-Unis

L'idée d'une responsabilisation de l'enseignement supérieur a donné naissance, dans de nombreux pays, à un débat politique houleux. Toutefois, ce débat vise essentiellement à définir des objectifs ou des approches génériques, et s'intéresse relativement peu aux mécanismes grâce auxquels les universités pourraient avancer sur la voie des objectifs de transparence. De même, il faudrait s'interroger davantage sur le rôle clé que pourraient jouer les universitaires pour concevoir de nouvelles méthodes d'évaluation des retombées de l'apprentissage. Il est en effet essentiel que les membres du corps enseignant jouent un rôle central dans les initiatives visant à accroître la responsabilité et la transparence des systèmes d'enseignement supérieur : pour fonctionner durablement, ces initiatives doivent être menées de façon décentralisée, au vu des spécificités propres à chaque discipline et à chaque niveau d'études. Dans cette optique, les universitaires ont bel et bien un rôle à jouer à différents stades : il leur faut élaborer des outils d'évaluation, mais aussi tester et adapter ces outils au vu des résultats de recherche les plus récents, interpréter les résultats obtenus en termes de responsabilité et modifier si nécessaire les programmes ou les méthodes pédagogiques.

Ce rapport propose un cadre théorique utilisable par les universités et les autres établissements d'enseignement supérieur pour concevoir puis utiliser des outils permettant d'évaluer les retombées de l'apprentissage. L'auteur suggère par ailleurs que certaines professions et disciplines (telles que les entreprises commerciales, le secteur éducatif, l'industrie chimique, le monde littéraire ou encore les organismes de protection sociale) pourraient contribuer, à l'échelon national et international, à promouvoir cette évolution dans leurs domaines respectifs.

While the policy debate on accountability in higher education has been vigorous in many countries around the world, debate has focused primarily on broad objectives or approaches. Much has been accomplished certainly, with more than 70 countries today having agencies overseeing the quality of higher education provision (INQAAHE, 2008). Typically, governments have taken steps to establish an accrediting or quality assurance agency and have empowered it to review and evaluate academic programmes. Consequently, most higher education institutions today are required to submit to external reviews or to gather and report statistical information on a regular basis. A recent World Bank funded project extends this approach further, offering a global initiative that encourages existing agencies to share information on good practice with other agencies that are just getting underway.

In recent years, some new initiatives have begun to move beyond such broad policy approaches. Especially promising is the increasing focus on student performance and outcomes, which has become a major emphasis among many quality assurance organisations. The Quality Assurance Agency in the United Kingdom, for example, recently established benchmarks based on formal statements about the expected coverage of several subjects. These statements are specific, relatively comprehensive and also flexible in their use (Quality Assurance Agency, 2008). For master's level study, for example, benchmark statements are available for five subjects: business and management; chemistry; engineering; pharmacy; and physics. For each of these subjects, narrative statements describe the content of course materials and what should be learned by students, including the experiences that students should have and the skills that should be developed. An underlying premise is that institutions have flexibility in how they structure their instructional programmes to meet such benchmarks. The statements also acknowledge that a range of assessment tools might be used. In master's-level physics, for example, 13 different assessment methods are described as appropriate, including examinations, individual and team project reports, peer assessments and direct observations of student actions to demonstrate learned skills.

In the United States, there have been attempts to foster attention on student outcomes throughout the last few decades. Such arguments have been found especially among academics, marked by the continuing insights offered by Alexander Astin (*e.g.* 1993) and Peter Ewell (*e.g.* 1983; 1993; 2003). In the early 1990s, the American Association for Higher Education, a national

non-profit organisation, gave considerable visibility and support to the development of methodologies and pilot projects to develop student outcomes (cf. El-Khawas, 2005). At about the same time, US accrediting agencies – including regionally organised accrediting organisations and other accrediting agencies that focus on professional specialties – became more active and many strengthened their standards, asking study programmes to regularly assess whether student performance is meeting expected standards of quality (Kezar and El-Khawas, 2003; Eaton, 2003). In recent years, another spur to a focus on student outcomes has been the recommendations made by a national commission sponsored by the United States Secretary of Education. Several recommendations urged new university actions to improve ways of assessing student outcomes, including the development of templates or standard formats for informing student applicants and the public about student performance and outcomes at each university (The Secretary's Commission, 2007; Dickeson, 2006).

These and similar initiatives in other countries – notably including the Hong Kong Council on Academic Accreditation, the National Assessment and Accreditation Council in India, and the Australian Universities Quality Agency (e.g. Martin and Stella, 2007; Stella, 2002) have usefully shifted the policy debate toward developing measures of student performance and achievement. However, there still has been limited attention to the institutional implementation of such new mandates. Much more attention is needed on the complex tasks that institutions of higher education must undertake to define and implement systems to assess learning outcomes. Colleges and universities have been called to action, but without needed specification of who, what, where or how the recommendations are going to be implemented.

The role of academics in assessing learning outcomes also needs attention. Defining student outcomes and developing suitable ways to assess a programme's success in helping students reach those outcomes are academic tasks, not administrative matters. Academics have the expertise in subject areas; they have experience with instruction and with strategies for achieving instructional objectives as central components of their day-to-day work (Barrie and Ginns, 2007). Giving members of the professoriate a central role in accountability is also consistent with long-standing principles of academic autonomy.

Active academic involvement is vital to the proper evaluation of student outcomes at the university level. Unlike elementary and secondary levels of schooling, where a single outcome or limited set of outcomes can be identified (e.g. reading proficiency or performance on international mathematics tests), differentiated outcomes must be addressed with university study. The merits of multiple programmes designed to train young people for a wide variety of careers must each be evaluated. Training in the arts, in social welfare

administration or in chemistry, for example, call for developing and assessing quite different skills and knowledge areas. Any single test of competence – even in broad areas such as effective writing – cannot do justice to what should be assessed to identify well-trained individuals in these or most other areas of tertiary-level study. Furthermore, complex tests of competencies are needed to assess the outcomes of study programmes that involve master's and doctoral study or other advanced study (*e.g.* law and medicine).

This paper examines ways that universities might move forward with the important work of assessing student performance and outcomes. Following some comments on implementation problems in universities, the paper outlines processes that need to be undertaken within institutions of higher education and reviews some critical issues in determining how to engage academics in the development of outcome measures for student learning. While the primary focus is on institutional-level actions, some discussion is also devoted to the prospects for engaging national agencies or organisations in projects to conduct the research and development needed to prepare valid, efficient, reliable and meaningful measures of student performance and outcomes.

The difficulties of policy implementation

Scholars consistently warn that the effort to implement a new policy can be fraught with difficulty. The research on policy implementation (*e.g.* Sabatier, 1986; Ewell, 1993; Gornitzka *et al.*, 2002; Kogan, 2005) points out several challenges in attempting to adopt a student outcomes process in institutions of higher education. In particular, constraints arise from the decentralised structure of universities, in which the core tasks of instruction are found at the lowest organisational level of diverse departments and programmes. This structure means that policy is likely to be translated into practice unevenly, be interpreted differently in various settings or fail to take hold in some units. Furthermore, as the late Maurice Kogan emphasised, implementation approaches have better prospects if organisers recognise that implementing new policies can have “deep implications for academic work,” often calling for adaptation of long held values and assumptions (Kogan, 2005, pp. 59, 64). In the best of circumstances, a tension must be managed between the “top-down” approaches offered by administrative officials and the “bottom-up” perspectives of academics who have more day-to-day experience with instruction and a greater awareness of problems faced in actual practice.

A policy to introduce assessment focused on student performance at the tertiary level calls for at least two separate processes: first, development of assessment mechanisms/tools and, second, making use of assessment tools and their findings. In both processes, academic judgment and expertise are essential. While the second step – using assessment tools – is primarily a task to be conducted within institutions, the developmental work could be handled

in several ways, including through use of nationally co-ordinated consensus procedures. Thus, for some countries, a ministry of education might appoint a special commission, or contract with a well-qualified organisation to conduct the developmental work and also to co-ordinate a process to obtain academic reviews and commentary on proposed approaches. Another approach might rely on national (and international) professional societies or specialised accrediting agencies to organise a consensus-building process to identify and decide on student outcomes appropriate to their specialties. Professional organisations in such fields as business management, engineering and nursing already have experience in developing student outcome measures (El-Khawas, 2001). Representatives of national and international bodies, including experts from OECD, UNESCO and the World Bank, as well as representatives of national quality assurance agencies and their affiliate organisations (e.g. INQAAHE, ENQA), are other resources able to identify issues and to facilitate wide dissemination.

Once assessment tools are developed and validated, the second process – to introduce and put in place an operational assessment process – calls for very different types of involvement. Institutional-level action is the focus, although institutions may obtain guidance and assistance from external sources. A number of separate challenges must be addressed within institutions of higher education, including:

- developing an administrative plan and schedule for phasing in new systems;
- developing assessment instruments to fit each of the institution's programmes;
- interpreting assessment results to public audiences;
- interpreting and acting on assessment results for programme improvement.

Each of these involves academics, sometimes based on small working groups or, in other circumstances, requiring formal opportunities for wide consultation and commentary by academics in a range of subject fields. Some of these tasks also involve administrators, working jointly with academics.

A range of institution-level actors thus need to be involved in developing measures of student learning if they are to have system-wide impact. Roles and levels of involvement would differ according to the sequence of steps needed for both development and implementation.

Institutional actions: A process outline

Table 1 outlines the steps that must be taken at the institutional level to put in place a system for assessing the outcomes of student learning. As it suggests, multiple steps are called for, and need to be co-ordinated. The developmental work may involve new actions for many institutions. For others,

Institutional-level steps to introduce assessment approaches

Institutional planning	Programme-level implementation
1. Develop, refine and test assessment instruments suitable for all study programmes.	1. Develop an administrative plan and schedule for carrying out assessments.
2. Develop and refine assessment criteria, cut-offs and consequences.	2. Develop and conduct reporting procedures for public accountability, with results shared with governmental agencies, students and the public.
3. Develop a programme improvement strategy, based on assessment results.	3. Implement programme improvement, with results discussed by programme faculty and changes made in light of problems that are identified.

prior actions might offer a useful foundation that could speed remaining efforts. Similarly, some study fields may already have taken some steps toward an assessment system while others would need to start from the beginning.

The multiple steps in this process are not easily followed, especially when one recognises that academic institutions can only introduce changes while also maintaining their usual flow of instruction and research. Such steps cannot be hastily mandated, however, as the long-term integrity of the entire process would suffer unless good decisions are made at each of many judgment points. It is necessary to allow time to assess the results of initial changes, for example, and then to make further modifications. Even when good results are achieved, results need to be replicated in additional settings or with other groups of students, typically leading to still more modifications before wide-scale adoption of an approach can be recommended. Without care and discipline at each stage, chances of disappointing results are substantial.

Critical issues in the planning stage

Who will be in charge?

To carry out the planning and implementation steps that have been outlined, universities and other tertiary institutions normally will wish to designate some form of general co-ordinating body, task force or council. This assessment council will have long-term responsibilities and thus might be structured formally or given clear links to other standing units. In light of the range of its duties for development and implementation, the council also needs administrative support, including research and information technology resources.

The council's members must be academics, preferably persons with experience at the institution, who have gained the regard of colleagues for their fairness and sensitivity to student interests. Academic expertise is a critical ingredient, because procedures must be constructed that are appropriate to different study fields. Specific expertise in the design of instructional materials is also needed.

Selecting instruments

Typically, universities can identify external resources that assist with the initial developmental task of identifying assessment instruments. Accrediting agencies, non-profit educational institutions or partner institutions in other settings may offer resources. Some study programmes at the institution may have relevant instruments that can be adapted to other programmes.

Because any instruments may need to be adapted, it generally will be better to find and adapt instruments that have already been used than to conduct the lengthy process of newly constructing an instrument. The adaptation process will accomplish needed refinement, while it also gives faculty direct exposure to the strengths and weaknesses of specific assessment instruments.

Preliminary selections, to identify a few assessment instruments, can be made by the assessment council. A subgroup of council members may suggest modifications that will be suitable for the range of study programmes the institution offers. A process is needed to allow faculty in each study programme to review assessment methods and determine which methods best fit their programme. In some cases, substantial modification may be needed, but most programmes will find they can choose and/or modify something from an adequate range of existing instruments.

Determining criteria and cut-offs

While sophisticated methods exist for developing assessment instruments, methodological guidelines offer only a starting point for the decisions that institutions must make for a number of consequential decisions. Any assessment instrument needs a metric: What is a passing score, or a failing score? What performance will be considered “substandard” or “weak”? Will a single score be used to separate those students with acceptable performance from others, or will several gradations be used (*e.g.* very good, good, good with limited deficiencies)? Related to these decisions, it is necessary to identify what consequences will follow for students receiving various scores or assessment results. For failing or below-adequate scores, will students be allowed to re-take assessments (or only the sub-parts of the assessment that they failed)? Will they be required to re-take coursework?

The assessment council must take responsibility for developing detailed policies that spell out such decisions and procedures. Necessarily the council will rely on substantial commentary and advice from individual academics and programmes on how their students and programmes might be affected. The assessment council's final recommendations also must be ratified or approved by some part of the university's academic structure. At some institutions, the chief academic officer – a provost, dean, academic vice president or similar position – will give the final approval, based on the recommendations sent forward by the assessment council.

Designing a programme improvement strategy

Programme improvement is at the heart of an assessment effort. Procedures must be designed that accomplish two purposes: assessment results must, first, be reported in such a way that they lend themselves to programme change and, secondly, procedures must arrange for a time period in which the faculty in the affected programme are to make modifications that respond to needed changes.

This is often a weak part of institutional models for assessing student learning. If programmes are allowed only a limited time to make changes, they may only be able to make superficial improvements, or promises. For significant improvement to occur, programmes need to be given resources, including the assistance of experts, to help them develop good solutions to issues that arise. They also need time to discuss, consider and test alternatives.

For most institutions, a single, co-ordinated model for programme improvement can be developed that is applicable to all of the institution's study programmes. A regular schedule of programme review and improvement might be designed in which, on a rotating basis, each programme undertakes a formal review every two, three or four years.

Critical issues in the implementation stage

Developing a schedule for implementation

Several legitimate issues are likely to emerge as assessment procedures are developed. Most institutions encounter pressures to “go slow”, for example, as academics become immersed in working out unexpected problems and as they try to establish new assessment procedures. Nevertheless, in terms of setting a schedule, the overall institutional perspective should prevail; senior academic leaders should be sensitive to the problems that inevitably arise but must also establish a definite schedule for initially implementing the new assessment system. The schedule should take into account the concerns raised by academics but it must balance these internal concerns with the expectations of external audiences for disclosing meaningful assessment information.

In many settings, a phased schedule may be workable. Certain study programmes might be able to have reportable assessment results relatively quickly; these might include programmes in engineering, business and management, and other fields that have already been subject to assessment processes. Other programmes, newly encountering assessment methods or facing special issues in obtaining meaningful results for their students, might issue their first assessment results at a later date. For some institutions, early results might be available for certain levels of study while results for other programmes (e.g. advanced degree programmes) might take longer.

When decisions will count

A major decision during initial implementation involves whether results will “count” for students. In some settings, administrators have announced results and explained that they will be used only for purposes of programme improvement; students would continue to be evaluated on the basis of traditional grading procedures. In other settings, administrators determine that assessment results will not “count” against individual students during the first few years that an assessment programme is introduced, but aggregate results (i.e. for groups of students) will be publicly announced. In such a situation, poor results may get considerable publicity and actually motivate students to work harder in anticipation of the time when results will count against them.

Interpreting results for public audiences

Some difficult decisions are needed to establish what information will be made available to students, their parents and the general public, stemming from the assessment process. It is tempting for administrators to release results in such a way that little guidance is available on what the results mean. In the United States, as various states have issued “report cards” on the performance of higher education institutions in the last few decades, some states issued web-based reports filled with quantitative grids of statistics and obscure definitions. Sometimes, multiple measures were reported, giving the reader little guidance on how to interpret the measures. Another approach, also of limited value, is to issue narrative statements that focus mainly on the strong points that have emerged in assessment results, giving little attention to weaknesses that were found.

Useful guidance on this point may be obtained from the experience of accrediting agencies. In general, it can be expected that most institutions will need to try different approaches, perhaps working with small groups of students, parents, local citizens or other constituency groups to arrive at useful reporting styles.

Interpreting results for programme improvement

Perhaps the most critical result of an assessment system is the ability to provide each programme with practical feedback on ways to improve instruction and student learning. Needed, first of all, are measures that are in some way aligned with instruction. A useful approach, which might be established early in planning, is to align the assessments with key elements of the instructional programme. For programmes that include a writing component, for example, assessment instruments might be used that directly test student writing ability. For programmes that include an internship or external field work, the assessment might include several components that are tied directly to those parts of the instructional programme.

Problems of interpretation can still arise. A survey response which indicates that students “did not learn enough practical skills” can have different interpretations: Were opportunities offered but in an ineffective manner? Or are different opportunities needed?

Often, further inquiry is required, or follow-up questions need to be added to assessment instruments.

A balance is needed between allowing the programme’s faculty to interpret the results, possibly colouring them by their own direct involvement with the programme, and the interpretations that others might offer. One useful approach may be to have an administrative officer, or a subcommittee of Assessment Council members who have special experience with interpreting results and revising programmes, meet with the programme’s faculty and discuss results and possible implications.

Conclusion

This discussion has offered an outline of processes that are needed within institutions of higher education to adopt a student outcomes approach to accountability. It has discussed some of the important steps needed but acknowledges that much greater detail could be given on each step. Indeed, many resources and prototypes can be found in the work of quality assurance and accrediting agencies that have developed assessments in specific subject areas (cf. El-Khawas, 2001). Throughout, the discussion has emphasised the need to foster the engagement of academics in considering how to use assessment instruments. The larger goal is to encourage their use of these new approaches to assess student outcomes in individual subject areas.

The author:

Professor Elaine El-Khawas
 Professor of Educational Policy
 Department of Educational Leadership
 George Washington University
 Washington, DC 20816
 United States
 E-mail: elkhawas@gwu.edu

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The Growing Accountability Agenda: Progress or Mixed Blessing?

by

Jamil Salmi*
Tertiary Education, The World Bank

In the past decade, accountability has become a major concern in most parts of the world. Governments, parliaments and the public are increasingly asking universities to justify the use of public resources and account more thoroughly for their teaching and research results. Is this a favourable development for tertiary education? Or is there too much accountability, at the risk of stifling initiative among university leaders?

This article analyses the main dimensions of the growing accountability agenda, examines some of the negative and positive consequences of this evolution, and proposes a few guiding principles for achieving a balanced approach to accountability in tertiary education. It observes that the universal push for increased accountability has made the role of university leaders much more demanding, transforming the competencies expected of them and the ensuing capacity building needs of university management teams. It concludes by observing that accountability is meaningful only to the extent that tertiary education institutions are actually empowered to operate in an autonomous and responsible way.

* Jamil Salmi is the World Bank's Tertiary Education Coordinator. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author and should not be attributed in any manner to the World Bank, the members of its Board of Executive Directors or the countries they represent. This paper is derived from a short think piece published in October 2007 in *International Higher Education*. The author wishes to thank all the colleagues who kindly reviewed earlier drafts and generously offered invaluable suggestions, in particular Michael Adams, Svava Bjarnason, Marguerite Clarke, Graeme Davies, Elaine El-Khawas, Ariel Fiszbein, Richard Hopper, Geri Malandra, Sam Mikhail, Benoît Millot and Alenoush Saroyan. Full responsibility for errors and misinterpretations remains, however, with the author.

Les universités face aux exigences accrues de transparence et de responsabilité : une évolution bénéfique ou dangereuse ?

par

Jamil Salmi*

Coordinateur des programmes d'enseignement supérieur,
La Banque mondiale

Ces dix dernières années, les notions couplées de transparence et de responsabilité sont devenues incontournables dans la plupart des régions du monde. Les gouvernements, les parlements et le public attendent désormais des universités qu'elles justifient leur utilisation des ressources publiques et rendent davantage de comptes au sujet de leurs activités d'enseignement et de recherche. S'agit-il d'une évolution bénéfique pour l'enseignement supérieur ? Ou cette exigence accrue de transparence et de responsabilité risque-t-elle au contraire de tuer dans l'œuf les initiatives des dirigeants d'universités ? Cet article analyse les grandes problématiques qui sous-tendent cette évolution, étudie certaines des conséquences négatives et positives et propose un certain nombre de principes directeurs permettant aux établissements d'enseignement supérieur de répondre de façon réfléchie et mesurée à cette exigence nouvelle. L'auteur constate que la demande universelle de responsabilité et de transparence dans l'enseignement supérieur s'accompagne de contraintes nouvelles pour les dirigeants d'universités, en modifiant les compétences que l'on attendait d'eux jusqu'à présent et en obligeant, par voie de conséquence, les équipes de direction des établissements à renforcer leurs capacités. L'auteur termine en faisant remarquer que cette obligation redditionnelle ne fait sens que si les établissements d'enseignement supérieur ont effectivement la possibilité de mener leurs activités de façon autonome et responsable.

* Jamil Salmi est le Coordinateur des programmes d'enseignement supérieur de la Banque mondiale. Les observations, interprétations et conclusions, exprimées dans ce rapport sont exclusivement celles de l'auteur et ne sauraient en aucune manière être attribuées à la Banque mondiale, aux membres de son Conseil des administrateurs ni aux pays qu'ils représentent. Le présent rapport est extrait d'un bref article de fond publié en octobre 2007 dans la revue *International Higher Education*. L'auteur tient à remercier l'ensemble des collègues qui ont eu la gentillesse de réviser les versions précédentes de ce rapport et de l'enrichir de leurs précieuses remarques et suggestions. Il tient à remercier particulièrement Michael Adams, Svava Bjarnason, Marguerite Clarke, Graeme Davies, Elaine El-Khawas, Ariel Fiszbein, Richard Hopper, Geri Malandra, Sam Mikhail, Benoît Millot et Alenoush Saroyan. L'auteur est toutefois seul responsable des erreurs et interprétations erronées que pourrait contenir ce rapport.

Introduction

“Personally, I like the university. They gave us money and facilities, and we didn’t have to produce anything. You’ve never been out of college. You don’t know what it’s like out there. I’ve worked in the private sector. They expect results.” Dan Ackroyd, talking to Bill Murray after both of them lost their jobs as university researchers, in the movie *Ghostbusters* (Penn, 2007)

Compared to the well-established tradition of accreditation in the United States, public universities in most countries in other parts of the world have typically operated in a very autonomous manner. In many cases, the leaders of these universities are subject to little if any outside control. In the francophone countries of Africa, for example, public universities enjoy full independence in the selection (election) of their leaders and complete management autonomy regarding their daily operation. They are known for being wasteful, with repetition rates in the 25 to 50% range, but they are not accountable for their inefficient performance to the governments which fund them. In several Latin American countries, the constitution entitles the public universities to a fixed percentage of the annual budget which they are free to use without any accountability. Some countries in the region do not even have a government ministry or agency officially responsible for steering or supervising the tertiary education sector.

In the past decade, however, accountability has become a major concern in most parts of the world. Governments, parliaments and the public are increasingly asking universities to justify the use of public resources and account more thoroughly for their teaching and research results (Fielden, 2008). In Europe, an important part of the ongoing Bologna Process consists of designing a qualifications framework that will provide common performance criteria in the form of learning outcomes and competencies for each degree awarded. In the United States, one of the key recommendations made by the Commission on the Future of Higher Education set up by Secretary of Education Spellings in 2005 was to call for measures of student learning to assess the actual value added by tertiary education institutions.

Accountability may take many forms: legal requirements such as licensing, financial audits and reports, quality assurance procedures such as programme or institutional accreditation, benchmarking exercises to compare programmes across institutions, professional qualification examinations results, budget allocation mechanisms that reward performance, and

oversight structures such as governing boards with representation from external stakeholders. The press itself, with its controversial league tables, has entered the accountability arena in great force.

Is this a favourable development for tertiary education? Or is there too much accountability, at the risk of stifling initiative and confidence among university leaders? To respond to these questions, this article analyses the main dimensions of the growing accountability agenda, examines some of the negative and positive consequences of this evolution, and considers a few guiding principles for achieving a balanced approach to accountability and autonomy in tertiary education.

The growing accountability agenda

“No good book was ever written on command, nor can good teaching occur under duress. And yet, conceding this, the fact remains that left entirely to their own devices academic communities are no less prone than other professional organisations to slip unconsciously into complacent habits, inward-looking standards of quality, self-serving canons of behavior. To counter these tendencies, there will always be a need to engage the outside world in a lively, continuing debate over the university’s social responsibilities.” (Bok, 1990)

For universities and their leaders, accountability represents the ethical and managerial obligation to report on their activities and results, explain their performance, and assume the responsibility for unmet expectations. At the very minimum, all tertiary education institutions could be legally required to fulfill the following two basic dimensions of accountability: integrity in the delivery of education services and honesty in the use of financial resources. In addition, many stakeholders have a legitimate claim to expect a cost-effective use of available resources, the best possible quality and relevance for the programmes and courses offered by these institutions.

In the first instance, one of the most basic responsibilities of the state is to establish and enforce a regulatory framework to prevent unethical, fraudulent and corrupt practices in tertiary education as in other important areas of social life. In recent years, accusations of flawed medical research results in the United Kingdom, reports of Australian universities cutting corners to attract foreign students and the student loan scandal in the United States have shown the need for greater vigilance, even in countries with strong accountability mechanisms. Malpractices such as academic fraud, accreditation scams and misuse of resources plague the tertiary education systems of many developing and transition countries where corruption is endemic (Hallak and Poisson, 2006). Table 1 presents the various categories of fraudulent and unethical practices in tertiary education.

Table 1. **Catalogue of fraudulent and unethical practices in tertiary education**

Type of corruption/ fraudulent practice	Definition/ description	Most common perpetrators	Main victims
Financial management			
Embezzlement/inappropriate spending	Stealing or misusing funds (including research grants); falsification of accounting records	Institution	State
Fraud in public tender	Offering bribes (monetary or non-monetary) to obtain contracts	Institution	State
Supplier collusion	Illegal agreement on tuition fees and financial aid packages to avoid competition	Institution	Students
Academic management			
Examination fraud	Students cheating when taking exams or writing papers (copying, plagiarism)	Students	Institution
Unethical behavior of faculty	Sale of exam questions or grades; obligation to buy private lessons or textbooks; nepotism; discrimination; sexual harassment	Faculty	Students, employers, society
Non compliance with admission standards	Lowering of standards for fee-paying students; bribes or nepotism in applying admission criteria	Institution	Students, employers, society
Research fraud	Research data and/or results are misreported and/or misused	Faculty	Institution, state, society
Unethical management of faculty career	Corruption in hiring and promotion; discrimination based on gender, political or ethnical grounds	Institution	Faculty, society
Fraud in quality assurance process	Bribes paid to accreditation bodies/external reviewers to gain/maintain accreditation; biased external reviewers; fake accreditation body	Institution, accreditation agencies	Students, institutions not involved in fraud, society
Information management			
False credentials	Students applying with fake or falsified records	Students	Institution
Data manipulation	Supplying false or doctored data to government agency, accreditation association or ranking body	Institution	State, students, employers, society
Biased information	University officials having special relationships with certain agencies offering services to students	Institution, service provider	Students

Source: Adapted by Sonali Ballal and Jamil Salmi from Hallak and Poisson (2006).

In the second instance, public universities should legitimately be held accountable for their effective use of public resources and the quality of their outputs. Similarly, private tertiary education institutions must be answerable to all their stakeholders. In the words of John Millett, former senior vice-president at the Academy for Educational Development, “accountability is the responsibility to demonstrate that specific and carefully defined outcomes result from higher education and that these outcomes are worth what they cost”.

Mechanisms are therefore needed to measure and monitor the efficiency in resource utilisation, and assess the quality and relevance of the training received by university graduates, the productivity of research activities, and the contribution of universities to the local economy, especially in terms of technology transfer. Some governments and institutional leaders are also paying close attention to the equity balance in student recruitment and success.

Box 1. The Minnesota statewide accountability system

The US State of Minnesota produces an annual report that measures progress of the higher education system in supporting the state's economic development strategy. Minnesota's leaders recognise that, in order to lead consistently in these areas, the state must first embrace a system of accountability that can measure progress toward goals.

The organisation of the report reflects the results of a consensus-building exercise that brought together educators, policy makers, employers and community leaders in 2005 and 2006. Together they identified five broad goals and 23 indicators that define the public agenda for higher education and measure success towards these goals. The five goals are: i) improve success of all students, particularly students from groups traditionally underrepresented in higher education; ii) create a responsive system that produces graduates at all levels who meet the demands of the economy; iii) increase student learning and improve skill levels of students so they can compete effectively in the global marketplace; iv) contribute to the development of a state economy that is competitive in the global market through research, workforce training and other appropriate means; and v) provide access, affordability and choice to all students.

Source: Minnesota Office of Higher Education (2008), *Minnesota Measures: 2008 Report on Higher Education Performance*, www.ohe.state.mn.us.

The evolution towards increased accountability that can be observed in many parts of the world is not only a matter of more governments expecting their universities to answer for their performance and putting in place new mechanisms to achieve this. The growing accountability agenda is also reflected in the multiplicity of stakeholders, the multiplicity of themes under scrutiny, and the multiplicity of instruments and channels of accountability. Together, these three dimensions make for a situation of unprecedented complexity.

Today, university leaders must satisfy at the same time the competing demands of several groups of stakeholders that can be divided into six generic categories: i) society at large (often represented on university boards); ii) government which, depending on the context, can be national, provincial or

municipal; iii) employers; iv) alumni; v) teachers; and vi) the students themselves and their parents. Even within government structures, demands for accountability in tertiary education are coming from new actors. In Denmark, for example, responsibility for the universities sector has been entrusted to the Ministry of Technology.

In many developing countries, one of the most fundamental shifts taking place is making universities less influenced by the research and teaching interests of faculty and more attuned to the needs of the student community. In some cases, the *raison d'être* of public universities had become to provide staff employment and benefits rather than to serve as educational establishments focused primarily on preparing students as citizens and professionals. Such systems were rigorously guarded by academic councils that were accountable almost exclusively to administrative staff and faculty (World Bank, 2002). But from the student perspective, accountability means that the leadership of the university supports the establishment of an institutional culture where their rights are respected, good teaching and ethical behavior of faculty is encouraged, and the relevance of programmes is assured.

To respond to the demands of their external and internal stakeholders, university leaders must take many concerns into consideration, including: the extent to which access is offered evenly to all groups in society (equity), the standards of teaching and research (quality), the degree to which graduates receive an education matching labour market needs (relevance), the contribution of the university to local and/or national economic development (sometimes called the “third mission”), the values imparted by tertiary education institutions (citizenship and nation-building), the manner in which public resources are utilised (internal efficiency), and the financial capacity of the tertiary education system to grow and maintain high standards at the same time (sustainability).

In several countries, tertiary education institutions are even being held accountable for their impact on the environment. A recent survey of the top 100 universities and colleges in the United States has measured the institutions' sustainability programmes with respect to food, recycling, green buildings, climate change and energy conservation (June, 2007). The biannual ranking prepared by the Aspen Institute seeks to identify innovative MBA programmes that “lead the way in integrating issues of social and environmental stewardship into business school curricula and research” (Aspen Institute, 2005).

In their attempts to accommodate these multiple agendas, institutional leaders often face difficulties in convincing their constituencies, especially the faculty. The teaching staff has traditionally been the most powerful group in universities, especially where the head of the institution and faculty deans are democratically elected. Professors and researchers usually have a

powerful, sometimes decisive, voice on the various academic councils that govern universities.

Not even the most prestigious institutions are immune from these tensions, as Oxford University's failed attempt at financial reform illustrates. In the increasingly competitive market for academics, Oxford's central authorities face the need for additional resources to continue hiring internationally renowned professors and researchers. They have been constrained, however, by centuries-old governance arrangements and authority structures that give the control of a large share of the university's wealth to its individual colleges. A key aspect of the reform proposals submitted in 2006 by Vice Chancellor John Hood was to reduce the size of the University Council and bring in more external stakeholders, which would have resulted in a shift in accountability and increased financial oversight by outsiders. The reform was ultimately rejected by Oxford's academic community, leading to Hood's decision to step down at the end of his five-year term in 2009.

Finally, the pressure for compliance comes through an increasingly wide range of accountability mechanisms. The most common ones are the legal requirements that governments rely on to make tertiary education institutions accountable. Usually inscribed in the higher education law, ministerial decrees and public sector regulations, they encompass aspects of financial management (budget documents, mandatory financial audits, publicly available audit reports), quality assurance (licensing, accreditation, academic audits), and general planning and reporting requirements such as the preparation and monitoring of key performance indicators as practiced in Australia, the United Kingdom and several US states.

Accountability can be enforced in an indirect way, for example through financial incentives such as performance-based budget allocation mechanisms and competitive funds available only to those institutions whose projects satisfy official policy objectives. The performance contracts in Austria, Chile, France and Spain allow universities to receive additional funding against their commitment to fulfill a number of national objectives measured with specific targets agreed between the ministry of education and the institutions. In many countries, tertiary education institutions are encouraged to elaborate strategic plans outlining their vision of the future and the specific actions that they intend to implement to reach their strategic objectives.

Demand-side financing mechanisms can also be used to promote greater accountability. In the sixty-plus countries that have a student loan system, financial aid is often available only for studies in *bona fide* institutions, that is universities and colleges that are licensed (at the minimum) or even accredited. Innovative funding approaches, such as the voucher systems recently established in the US State of Colorado and in several former Soviet

Union republics (Armenia, Kazakhstan) or the contracting of places in private universities piloted in Brazil and the Department of Antioquia in Colombia, give students more power to enroll in the institution of their choice (Salmi and Hauptman, 2006).

Another way of bringing accountability to the wider community is to establish university boards with a majority of outside members who have the power to hire (and fire) the leader of the institution, as has recently happened in Denmark, Norway and Quebec (Fielden, 2008). A recent survey of governance reforms in Sub-Saharan Africa found several instances of countries moving towards greater external representation on university boards, including Botswana, Lesotho, Mauritius, Mozambique, Uganda and Zambia (Lao and Saint, forthcoming). In some of these countries, membership on academic councils has also been expanded to include employers.

The interplay of all these factors and dimensions makes for a dynamic relationship between universities and their stakeholders, with the pressure for accountability coming sometimes from unexpected quarters. For example, Intel announced in August 2007 that it was taking more than 100 US universities and colleges out of the list of eligible institutions where its employees could study for retraining purposes at the firm's expense because of quality concerns.

The power of public opinion is nowhere more visible than in the growing influence of rankings. Initially limited to the United States, university rankings and league tables have proliferated in recent years, appearing in more than 35 industrial and developing countries (Salmi and Saroyan, 2007).

“The US News rankings have become the nation's *de facto* higher education accountability system – evaluating colleges and universities on a common scale and creating strong incentives for institutions to do things that raise their ratings.” Kevin Carey, Education Sector (2006)

Even recognising the methodological limitations of these rankings, the mass media have often played a useful educational role by making relevant information available to the public, especially in countries lacking a formal system of quality assurance. In Japan, for many years, the annual ranking published by the *Asahi Shimbun* newspaper fulfilled an essential quality assurance function in the absence of any evaluation or accreditation agency. In recent years, the emergence of more objective rankings that rely on transparent data and robust indicators instead of reputational surveys, such as the Shanghai Jiao Tong University world ranking of universities and the German ranking prepared by the Centre for Higher Education (CHE), have played a growing role as reference frameworks for national or international benchmarking purposes.

To take this discussion one step further, Table 2 maps out the contribution of each instrument to the five main dimensions of accountability.

Table 2. **Instruments of accountability**

Instruments	Dimensions	Academic integrity	Fiscal integrity	Effective use of resources	Quality and relevance	Equity
Strategic plan					X	X
Key performance indicators				X	X	X
Budget				X		
Financial audit			X	X		
Public reporting				X	X	X
Licensing		X				
Accreditation/academic audit/evaluation		X			X	
Performance contracts				X	X	X
Scholarships/student loans/vouchers				X	X	
Rankings/benchmarking					X	

It underlines the necessity to rely on several instruments in a complementary way because of the multiplicity of policy objectives that influence the behaviours and results of tertiary education institutions.

The accountability crisis

“Not everything that counts can be measured, not everything that can be counted is meaningful.” Einstein

It is often said that the road to hell is paved with good intentions. In recent years, grievances about excessive accountability requirements and their negative consequences have come from many quarters. In Australia and the United Kingdom, for example, universities have complained of performance indicators overload, stressing that too much energy and time is spent on mining and reporting the data monitored by the government. In the United States, tertiary education institutions have expressed concern about the voluminous accountability information that they must produce, including reporting to regional and specialised accreditation associations, the federal Department of Education, state legislatures and state higher education commissions. The 2005 Report of the US National Commission on Accountability in Higher Education acknowledged that “[...] accountability for better results is imperative, but more accountability of the kinds generally practiced will not help improve performance. Our current system of accountability can best be described as cumbersome, over-designed, confusing, and inefficient. It fails to answer key questions, it overburdens policymakers with excessive, misleading data, and it overburdens institutions by requiring them to report it” (NCAHE, 2005).

Another common complaint is about the tyranny of the rankings published by the press, despite their questionable use of unreliable data and their significant methodological flaws. After *Asiaweek* published its first

rankings of Asian and Pacific region universities in 1997 and 1998, 35 universities refused to participate in the survey in 1999; more than half from China and Japan. The boycott led to the actual termination of the initiative. More recently, in 2007, two major boycotts were initiated by leading universities in Canada and the United States against the Macleans and US News and World Report rankings, respectively.

The recent controversy around the recommendations of the Spellings Commission on the Future of Higher Education in the United States, regarding the need to measure learning outcomes, illustrates the weariness of the tertiary education community *vis-à-vis* additional accountability demands beyond accreditation. One of the main claims of the Commission was that accreditation falls short of providing a clear picture of actual learning outcomes. In the words of Secretary of Education Spellings, “[...] by law, student learning is a core part of accreditation. Unfortunately, students are often the least informed, and the last to be considered. Accreditation remains one of the least publicised, least transparent parts of higher education – even compared to the Byzantine and bewildering financial aid system” (NACIQI, 2007). Since the publication of the Commission report, many stakeholders in the higher education community, especially the accreditation associations, have lobbied hard to avoid the imposition of standardised measures of student learning outcomes either by the federal government or by Congress.

This debate has even taken an international dimension after the OECD announced its plan to undertake a study to explore the feasibility of measuring student learning outcomes across tertiary education institutions in various countries, as the Programme for International Student Assessment (PISA) does for secondary education students. Even though AHELO, the International Assessment of Higher Education Outcomes, is meant to focus on generic skills such as analytical reasoning and critical thinking, it has been met with skepticism by the European and US higher education community, as the following quotes reveal (Labi, 2007):

“We are now asking the institutions to identify their learning outcomes, and we know from the American experience that these frameworks take a long time to develop in a sound way – It is a problem, there is no question about it.” Andrée Sursock, Deputy Secretary General of the European University Association

“I don’t know the details. But just as I don’t think the US government should be the promulgator of academic standards for the US community, I’m very uneasy about an organisation comprised of governments driving something like this.” Peter McPherson, President of the National Association of State Universities and Land-Grant Colleges

In developing and transition countries, university leaders often complain that government confuses accountability with excessive control. Generally speaking, it is neither realistic nor fair to expect tertiary education institutions that enjoy limited autonomy to be fully accountable for their performance. In some developing countries, public universities receive insufficient, often unpredictable budgets, and are not allowed to generate or keep additional resources. They do not have the authority to determine staffing policy, budgetary allocations and the number of students admitted. They have little say about the number of faculty positions, the level of salaries or promotions. Brazil's Law of *Isonomy* establishes uniform salaries for all federal jobs, including those in the federal universities.

Even in countries intent on relying more on market forces than on government control to steer their tertiary education system, governments find it difficult to decrease the degree of control over public universities. In Chile, for instance, where public universities receive less than 30% of their budget from the state, they are still subjected to civil service regulations, especially with regard to human resources policies, financial management, and the procurement of goods and services. As a result, they do not enjoy the flexibility needed to use available resources in the most efficient manner and to compete with private institutions on a level playing field (OECD and World Bank, forthcoming). Similarly, in the Province of Quebec in Canada, the 2007 overspending scandal at the University of Quebec in Montreal (UQAM), linked to an ambitious infrastructure programme that turned into a bungled real estate development, resulted in increased central control and tighter regulations for all public universities in the province. The universities complained that, instead of imposing a straightjacket on all of them as a reaction to gross mismanagement at UQAM, the government would have been better inspired to put in place clearer reporting requirements and guidelines to allow university boards to play their oversight role more effectively (Thompson, 2007).

These real or perceived excesses can have worrisome unintended consequences. In Canada and the United States, for instance, there have been rumors of universities and colleges "doctoring" their statistics to improve their standing in the rankings. Even in the absence of unethical behaviors, institutions may succumb to the natural temptation of paying more attention to factors such as SAT scores and donations from alumni that receive prominence in the rankings, at the detriment of other aspects, such as the quality of teaching and learning, which may be more important from an education viewpoint.

Finally, another trend of concern in the aftermath of 11 September 2001, has been the enforcement, in a growing number of US universities and colleges, of politically correct codes of conduct such as the Academic Bill of

Box 2. **Market forces vs. central control in Kazakhstan and Azerbaijan**

Comparing recent trends in two former Soviet Union republics, Kazakhstan and Azerbaijan, helps to illustrate the existence of practices that may stifle the development of the tertiary education sector.

Kazakhstan introduced in 2001 a voucher-like allocation system to distribute public resources for tertiary education. About 20% of the students receive education grants to study in the public or private institution of their choice. To be eligible, institutions must have received a positive evaluation from the Quality Assurance Unit of the Ministry of Education. As a result, all tertiary education institutions have become more attentive to the quality and relevance of their programmes – or at least their reputation – as it determines their ability to attract education grant beneficiaries.

In Azerbaijan, by contrast, the Ministry of Education centrally controls student intake in every university in the country, even in private ones. The ministry also decides which programme a university is allowed to open, and even enforces the closing of programmes in areas perceived to be of little relevance or saturated. For example, in 2006, a number of universities had to terminate their programmes in law, medicine or international relations. This restrictive planning framework makes it difficult for the more dynamic tertiary education institutions to innovate and expand.

Source: Field trips by the author in 2006 (Kazakhstan) and 2007 (Azerbaijan).

Rights, heavily influenced by the far-right republican agenda, resulting in non-negligible restrictions of academic freedom. In recent years, a number of top universities opted to reject lucrative research contracts from the US Department of Defense rather than compromising academic freedom. A 2007 survey of 20 top schools found 180 instances of worrisome clauses attached by the federal government to research contracts, including 12 at the University of California in Berkeley (University World News, 2008).

Expected and unintended benefits of accountability

“It is not just about catching the thieves, it is about having the right institutional and structural procedures to ensure that you prevent the occurrence of bad behavior.” Obiageli Ezekwesili, former head of anti-corruption drive, Nigeria

In spite of the challenges associated with multiple accountability requirements, employers, students and tertiary education institutions all benefit from increased information about the quality of existing programmes and the labour market outcomes of graduates. In countries where surveys of student engagement are conducted regularly (Australia, Canada, United

Kingdom, United States), high school graduates are better equipped to choose which college or university they would like to attend.

Labour market observatories, which provide detailed information about the employment characteristics of graduates from various institutions and programmes, are another source of relevant information. In Tunisia, for example, a recent tracer study showed that graduates from engineering schools, technology institutes and the more selective faculties had much better employment opportunities than graduates from open access faculties in the humanities, law and economics. In the United States, Florida is widely regarded as the state with the most advanced education/employment information system (Carey, 2006).

Another interesting example comes from Brazil where in 1996 the Ministry of Education introduced an assessment test meant to compare the quality of undergraduate programmes across public and private universities.* Even though the results of the *Provão* did not count towards the marks of graduating students, it met at first with a lot of opposition and resistance. The National Student Union called for a boycott of the *Provão*, many students were reluctant to take the test and the universities themselves were not keen to encourage their students to participate, especially after the first rounds showed that some of the top public universities had scored less than expected while some students from lesser known private universities had achieved good results. But, over time, the *Provão* became more accepted and, increasingly, employers asked job applicants to share their test results, thus making it a strong incentive for students to participate. The *Provão* results even influenced students in their choice of tertiary institution. Between 1996 and 2002, the demand for courses in private institutions that had been evaluated positively grew by about 20%, whereas the demand for courses with a negative assessment went down by 41% (Salmi and Saroyan, 2007).

* The *Provão* consisted of a final course examination for undergraduate students that did not count towards the graduation of the students themselves but served to evaluate the performance of their programme and institution. Using a five-point scale, the examination tested students' knowledge in their specific field of study (engineering, psychology, law, etc.), with an emphasis on the mastery of key concepts and the ability to think critically rather than the memorisation of accumulated information. First met with opposition, absenteeism and boycotts on a number of university campuses, the *Provão* grew considerably in coverage and influence over the years. While only 56 000 students participated into the first exam which covered only three disciplines (administration, law, and engineering), by its last year of existence (2002) it was taken by 400 000 students and encompassed 24 subjects. Institutional results were made public every year in the press and via a government publication. The *Provão* was also used as an instrument to collect exhaustive data on the profile of graduating students and their evaluation of the quality of the education received (Salmi, forthcoming; Schwartzman, 2006).

Conscious of the need for more transparency, many US university leaders have launched initiatives to make their institutions more accountable on a voluntary basis. The American Association of State Colleges and Universities and the National Association of State Universities and Land-Grant Colleges announced in September 2007 that they would start publishing key performance indicators in the context of the Voluntary System of Accountability Program. According to the plan released by the two associations, each participating university would use a common template – called College Portrait – to post key data on cost, transfer and graduation rates, and student satisfaction. The Program will also include an assessment of student learning from one of the following three existing tests: Collegiate Assessment of Academic Proficiency, Collegiate Learning Assessment, and Measure of Academic Proficiency and Progress (Fischer, 2007). Among the sponsors of this proposal, aimed as a reaction to the recommendations – and perceived threats – contained in the Spellings Commission report, are the same university presidents who decided to boycott the US News and World Report rankings.

In the same spirit, a report released in January 2007 by the Association of Governing Boards of Universities and Colleges suggests that governing boards should improve their own accountability standards and develop codes of conduct to avoid increased government interference (Fain, 2007). Recognising the need to uphold the mission, heritage and values of their institutions and to be accountable to the public interest and the public trust, the Association proposes greater attention and stricter rules with respect to fiscal integrity, board performance, educational quality, presidential search, assessment and compensation.

A similar trend can be observed in other parts of the world. Australian universities have taken the initiative to build a set of indicators that would measure the scope and impact of their regional engagement. In Belgium, where there is no official accreditation system, the Flemish universities have voluntarily joined the German ranking exercise for benchmarking purposes.

Accountability can also be useful when tertiary education institutions use their reporting obligations as a management tool to monitor ability to meet strategic targets. In the Province of Quebec, the annual presentation that university rectors are required by law to make to Parliament provides an opportunity to showcase their plans and achievements.

In sum, the new instruments of accountability are helping to promote a culture of transparency about the outcomes of tertiary education institutions. In the Netherlands, for example, accreditation reports are made available to the public. The results of international league tables, especially the ranking of research universities prepared by Shanghai Jiao Tong University since 2003, are increasingly watched by countries and institutions eager to benchmark

Box 3. **Balancing autonomy and accountability in Ireland**

The Irish case represents perhaps one of the most interesting experiences of partnership between government and the university sector in setting up a comprehensive accountability framework. Recognising that good governance is essential given the crucial role played by tertiary education in the country's economic and social development, the Irish Universities Association (IUA) decided in 2001 to adopt a Code of Governance that goes beyond the accountability requirements set by the 1997 Universities Act.

This code was revised in 2007 in consultation with the Higher Education Authority (HEA) to reflect recent developments in governance arrangements in Ireland and Europe and take into consideration the recommendations of the 2004 Review of Higher Education in Ireland by the OECD. The new version extends the recommendations on principles of good governance and good practices beyond the realm of financial management that was the primary focus of the 2001 Code. This includes, in particular, a written code of conduct for members of the governing board and university employees, principles of quality customer service, a system of internal controls and risk management, reliance on strategic planning to set objectives and targets against which performance can be measured, and detailed reporting arrangements.

Source: HEA and IUA (2007), "Governance of Irish Universities: A Governance Code of Legislation, Principles, Best Practice and Guidelines".

themselves in an international perspective. The French Minister of Higher Education declared a few days after the publication of the 2008 rankings that "these lists of winners may not be ideal, but they do exist [...] They show the urgency of reform for the [French] university" (Floc'h, 2008).

But not all stakeholders are ready for this kind of transparency. US accreditation associations maintain a shroud of secrecy over accreditation reports. Many US universities, including all top-tier national universities, have refused to release their results in the National Survey of Student Engagement (NSSE) since it started in 2000. NSSE collects useful information on how students feel about the quality of teaching and engagement in their institution. In Pakistan, the vice-chancellors weighed on the Higher Education Commission not to make the results of its first ranking available to the public (Salmi and Saroyan, 2007). In New Zealand, two universities successfully sued the government in March 2004 to prevent the publication of an international ranking that found them poorly placed in comparison with their Australian and British competitors.

Conclusion: the way forward

“The organising principle for accountability must be pride, not fear.”
(NCAHE, 2005)

The proliferation of accountability obligations and mechanisms has not been met with enthusiasm by all stakeholders in the tertiary education community. The most common complaints are about cumbersome reporting obligations, unreasonable demands from government, loss of institutional autonomy and undue pressure from biased league tables.

But notwithstanding the excesses and misunderstandings that accountability requirements may sometimes bring about, the growing availability of information about tertiary education institutions and their results can only be saluted as a healthy development. A recent report on funding and governance reforms in Canada acknowledged this:

“The greater interest in accountability has played out differently by sector and province recognising the quite different relationships between governments and the institutions and changes over time in the perceived intent and value of accountability initiatives. Initially seen as intrusive and a recipe for government micro-management with a single goal of containing expenditures, the value of good accountability frameworks is now generally recognised as an important ingredient in the overall management and operation of post-secondary institutions. Moreover, over time, the emphasis has shifted from a more narrow view of adherence to policies and procedures and financial accountability, to a more comprehensive view of accountability with an onus on multi-year plans and performance measures – often developed jointly (or at least with some consultation) by government and the institutions.” (Snowdon, 2005)

The multiplicity of accountability mechanisms provides students, employers, government and society at large with objective data and feedback about the operation and outcomes of tertiary education institutions. Adherence to administrative and financial rules is important to satisfy the accountability needs of the state. Adherence to quality standards makes tertiary education institutions accountable to their peers and helps to keep fraudulent practices in check. And by focusing on the learning outcomes of their students and the research results of their professors, the institutions are better able to respond to the needs of the productive sectors and society at large. This also gives them better instruments to assess their strengths and weaknesses and reflect on how to improve their performance.

The universal push for increased accountability has made the role of university leaders much more demanding. They are under constant pressure to report on their plans and justify their achievements, exposing themselves to harsh sanctions if they fail to meet expectations, as the recent spate of dismissals of university presidents in the United States illustrates.

In light of the analysis undertaken in this article, three principles of good accountability can be proposed. First, accountability should not be so much about the way institutions operate as about the results that they actually achieve. To use the distinction proposed by Stein (2005), procedural accountability, which is primarily concerned with rules and procedures, is less meaningful than substantive accountability, which focuses on the essence of the research, teaching and learning experience in tertiary education institutions. It may be easier to monitor the first type of accountability, but it is without doubt more relevant to concentrate on the second one, notwithstanding its complexity.

Second, accountability works better when it is experienced in a constructive way than when it is imposed in an inquisition-like mode. Tertiary education institutions are more likely to appreciate the value of their reporting obligations if the relationship with their stakeholders, especially government authorities, responds to positive incentives rather than punitive measures. Therefore, accountability should be less about justifying a poor performance and more about making strategic choices to improve results. Institutions must not react to the past as much as try to shape their future. The Continuous Quality Initiative launched by the University of South Florida in the United States is a useful illustration of this type of proactive endeavor to improve processes and results across the board.

Third, the most effective accountability mechanisms are those that are mutually agreed or are voluntarily embraced by tertiary education institutions. This ensures a greater sense of responsibility with respect to the feedback process and fuller ownership of the agreed instruments. The performance contracts mentioned earlier are a good example of this kind of shared commitment as they represent the culmination of a negotiation process between university leaders and government officials to ensure convergence between the strategic goals of the institution and national policy objectives.

“We need a fresh approach to accountability, an approach that yields better results. We need accountability to focus attention on state and national priorities and challenge both policymakers and educators to shoulder their share of the responsibility for achieving them. We need accountability to give us dependable, valid information to monitor results, target problems, and mobilise the will, resources, and creativity to improve performance [...] A better system of accountability will rely on pride, rather than fear, aspirations rather than minimum standards as its organising principles. It will not be an instrument for diverting, or shifting blame. It will be collaborative, because responsibility is shared.” (NCAHE, 2005)

In both cases, institutional leaders need to focus first on defining a clear purpose and measurable objectives, and then on motivating all stakeholders to assume joint responsibility for achieving these goals. This may involve a

balancing act reflecting the need to reconcile multiple objectives that are not always compatible. For example, the pursuit of equity may be defeated by highly competitive admission conditions, especially in countries with socially segregated secondary schools (like Brazil) and/or a strong correlation between academic preparation and socio-economic origin (like France).

This irreversible evolution towards increased accountability has transformed the competencies expected of university leaders and the ensuing capacity building needs of university management teams. University presidents/rectors/vice-chancellors are accountable for many roles – leader of the academic community, chief executive of the business enterprise, spokesperson, fundraiser, advocate for all of higher education – for which they are not necessarily well prepared (June, 2006). They need to be able to harness the accountability agenda as a vehicle to focus on results and work towards improved performance.

Various national and international training programmes are available to help strengthen these dimensions which have become increasingly critical for effective governance purposes. They include training in leadership techniques, strategic and financial planning, budget management, financial reporting, and successful interaction with university boards or councils. The United Kingdom Leadership Foundation, launched in 2004 by Gordon Brown when he was minister of finance, illustrates well the importance given by a government to the effective operation of its universities in view of their expected contribution to the national development agenda.

Tertiary education institutions also need to put in place the solid information systems upon which an adequate institutional research capacity can be built. The main purpose is to develop a culture of self-assessment and establish mechanisms to collect and analyse, in a systematic and regular manner, the key data which are necessary to measure and report on the institution's performance. These data, in turn, underpin managerial decision making and strategy formulation.

Finally, it is ironic to note that, while accountability was initially resisted by universities in the name of autonomy, today's accountability requirements can be meaningfully fulfilled only to the extent that tertiary education institutions are actually empowered to operate in an autonomous and responsible way. Academic freedom and managerial autonomy is indispensable to the well-being of all societies. The successful evolution of tertiary education will therefore hinge on finding an appropriate balance between credible accountability practices and favorable autonomy conditions. Only then will tertiary education institutions be able to operate with agility and responsiveness, to enhance their efficiency, and to implement innovative practices which should lead, ultimately, to better learning outcomes and greater labour market and social relevance.

The author:

Jamil Salmi

Tertiary Education Coordinator

Human Development Network

The World Bank

1818 H Street, NW

Washington, DC 20433

United States

E-mail: jsalmi@worldbank.org

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The Regional Engagement of Universities: Building Capacity in a Sparse Innovation Environment

by

Paul Benneworth and Alan Sanderson
University of Twente, The Netherlands, and
Universities for the North East, United Kingdom

There are increasing pressures for universities to commercialise their research and increase their contributions to their local and regional environments. For those institutions located in areas of low demand, this can lead to a low-impact equilibrium of universities working with external partners, and having relatively low impact. In such circumstances, universities have to “build up” local demand for their knowledge. But this is long-term, costly and volatile, and so partnership and collaborative models of capacity building may be one way for universities to maximise the benefits whilst minimising the risks. In this paper, we explore how capacity in such situations builds up, and whether university regional associations (URAs) can help universities to develop regional capacity in such situations. The case study demonstrates that URAs can become a focal point for a community of regionally engaged university actors. It is this community which can help universities to rationalise and make sense of local uncertainties, and thereby increase total university regional contributions.

L'engagement régional des universités : comment le renforcer en l'absence de pôle d'innovation à l'échelon local ?

par

Paul Benneworth et Alan Sanderson
University of Twente, Pays-Bas, et
Universities for the North East, Royaume-Uni

De plus en plus, on attend des universités qu'elles commercialisent les fruits de leurs efforts de recherche et intensifient leur contribution locale et régionale. Mais, pour les établissements implantés dans des zones où leurs travaux suscitent une demande limitée, la collaboration des universités avec des partenaires externes risque fort d'avoir un impact, là aussi, limité. Dans ce cas, c'est aux universités de « créer » une demande de connaissances à l'échelon local. Mais il s'agit d'une démarche longue, coûteuse et à l'issue incertaine ; dans cette optique, les modèles de renforcement des capacités basés sur le partenariat et la collaboration interuniversités pourraient permettre aux établissements concernés de maximiser les bénéfices tout en minimisant les risques. Dans ce rapport, nous analysons la façon dont se créent les capacités d'engagement régional dans ce type de contexte, et nous nous efforçons de déterminer si les associations régionales d'universités (ARU) peuvent alors aider ou non les universités à développer leurs capacités régionales. L'étude de cas proposée montre que les ARU deviennent parfois le cœur névralgique d'un consortium d'acteurs universitaires engagés au plan régional. C'est précisément grâce à cette communauté d'acteurs que les universités peuvent faire face aux contingences locales et s'y adapter, ce qui permettra d'accroître la contribution régionale totale des universités.

Introduction

It is now widely accepted that a key element of the social compact between universities and their host societies is the provision of knowledge of wider value. Some have argued that this is a recent development, related to wider changes in the nature of society and of knowledge production (e.g. Gibbons *et al.*, 1994), as universities have lost their privileged role as monopolist producers of certain types of knowledge, facing increased competition in the “global marketplace of ideas” (cf. Bryson, 1999). Others have pointed to an increasing salience for universities’ knowledge, given the increasing importance of knowledge capital as the basis for economic competitiveness and productivity growth (cf. Temple, 1998). This raises the question of how far universities’ duties extend to responding to demands placed on them by external stakeholders given their core funding and research missions.

Although universities are often stereotyped as “ivory towers” whose academics shun broader roles, universities as institutions have evolved in response to wider social pressures, with new types of universities emerging in response to particular social contexts (Delanty, 2002; Arbo and Benneworth, 2006). Indeed, even institutions which have sought to exclude worldly influences from the academic sphere have found that it is impossible to completely stem universities’ wider social impacts (Feldman and Desrochers, 2003). The notion of university/community engagement is now uncontroversial, as it is embodied in the rise of the “third” (engagement) mission for universities.

What remains controversial is balancing between teaching, research and engagement missions, negotiating excellence and relevance, and exploiting existing knowledge without compromising production of new knowledge (Brink, 2007). Engagement is often a peripheral activity, and unless successfully embedded within a wider institutional change, remains peripheral to the core – teaching and research – activities of the university. Clark (1998) argues that long-term change within universities requires long-term institutional support, which usually also equates to a long-term stable funding stream. This raises difficulties for policy makers and politicians under pressure to produce short-term results. How can long-term organisational change to facilitate community engagement be built under such short-term policy horizons?

To explore this, we examine the way in which one particular established knowledge transfer institution in one region has made the transition from a one-off project to established regional institution. The organisation, “Knowledge House” in the North East of England, built up a strong community of individuals providing the service of getting academics to answer business questions. This community has become important to the partner universities in demonstrating commitment to engagement, and embodies an attractive promise of further potential for commercialisation if external parties invest in the universities.

Generative and developmental approaches to university engagement

One policy approach to promoting university engagement has been to encourage universities to become more active in providing various kinds high technology services such as new patents and licenses, talented staff, research and development (R&D) infrastructure such as clean rooms, and new high-technology businesses (Bradshaw and Blakely, 1999). Universities can be directly rewarded for providing these services more efficiently and more in line with regional needs. There are a number of problems with this approach, not least:

- In regions whose higher education (HE) and business sectors do not have significant overlaps, it may be difficult to find shared rationales for collaboration (Fontes and Coombes, 2001).
- It can overlook the direct economic significance of higher education as a magnet for talent and as an export industry in its own right (Goddard and Chatterton, 2003).
- It can ignore the potential that universities have to change regional economic structure, as a source of novel business and policy ideas (Gunasekara, 2006a).

Gunasekara (2006b) argues that these other kinds of university contributions can be qualitatively more important to regional economic development than the provision of particular services. He terms service provision a “generative” activity in contrast to “developmental” contributions, in which universities change the nature of the regional environment, working with policy makers to tailor particular policy instruments both to companies’ needs and universities’ capacities.

In such situations, universities’ contributions come as working in regional partnerships to find common solutions to regional problems rather than directly providing services. Universities’ own knowledge bases may help regional partners to look more intelligently at particular situations. However, because universities do not have perfect knowledge about regional needs and opportunities, some advance comes through regional co-learning,

where universities and regional partners experiment with potential regional solutions (cf. Muller and Zenker, 2001; Benneworth and Dawley, 2004). This co-learning can benefit the universities' core missions, and provide them with a rationale to engage regionally beyond merely wanting to be good corporate citizens.

A heuristic for this co-learning might be that a university and regional development agency co-fund a regional technology centre or liaison office providing consultancy support to all businesses (Garlick *et al.*, 2006). The individual transactions in turn create a database of regional innovative businesses, from which a regional cluster organisation can be mobilised, which might in turn create demand for a "cluster house" (incubator) around the technology centre. A "growing cluster house" could encourage property developers to create new industrial estates near universities (science parks). The presence of a network of innovative companies on a science park might in turn help the university to win funding for basic research, using the cluster to demonstrate that its research activities do produce social benefits. In seeing a clear benefit from its engagement activity, the university therefore becomes committed to engagement, and those various institutions created – the technology centre, cluster house and science park – are also supported by the university, increasing their chance of success.

Following this heuristic, we ask whether it is possible, in a less successful region where innovation policies are hard to deliver effectively, to initiate this capacity-development trajectory? To explore this question, we look at the case of the North East of England, which partially draws on the OECD review of its universities' regional contributions (Duke *et al.*, 2006). In the case study, we produce a stylised analysis of what is happening in the region in order to explain Knowledge House's impacts, based on both the peer review visit in 2005 as well as follow-up interviews with senior academics across the regional universities in 2006 (Goddard *et al.*, 2006) and Knowledge House (2006) staff. We distinguish between three groupings within the universities, senior managers, academics and knowledge transfer professionals. This allows more general lessons to be developed towards an accepted model of good practice, and we acknowledge that the regional reality may be somewhat fuzzier than our stylised model suggests.

The evolving policy environment for English knowledge transfer

Over the course of the last ten years, the United Kingdom has witnessed an increasing governmental emphasis on innovation as a driver of productivity growth and economic development, led by the UK Finance Ministry, Her Majesty's Treasury. A series of Treasury policy papers have identified a GBP 30 billion "gap" in the United Kingdom's economic performance

in those regions with below average productivity levels (HM Treasury, 2001, 2003a, 2006). The government's stated intention has been to close this gap without directly redistributing public resources between regions, by investing in success and removing barriers to economic growth. For less favoured regions (with below average productivity), universities may represent important sources of potential regional economic growth, and much effort has been devoted to stimulating universities to maximise their territorial economic benefits.

Similarly, this changing approach to economic development policy has precipitated an evolution in governmental attitudes towards universities' knowledge transfer activities. In 1994, as part of an attempt to lobby for increased overall HE funding, the UK's sectoral HE group the Committee of Vice-Chancellors and Principals, published the report *Universities and Communities* (Goddard et al., 1994). The subsequent National Committee of Inquiry into Higher Education (the "Dearing" Inquiry) (NICHE, 1997) included a chapter on universities' regional contributions (Robson et al., 1997), and the main report concluded that HE institutions (HEIs) should be formally represented on regional economic bodies. This laid the foundations for a rapidly rising governmental interest in universities' regional contributions, which can be categorised into three distinct phases (HEFCE, n.d.):

- **Experimental** (1998-2001): A fund – Higher Education Reach Out to Business and the Community (HEROBAC) – was created to give all HEIs the opportunity to bid for, granting up to GBP 1.1 million to work better with businesses and communities, a total of GBP 66 million being awarded to 137 projects.
- **Enthusiastic** (2001-04): HEROBAC was expanded into the Higher Education Innovation Fund (HEIF), and universities were encouraged to develop regional consortia to become more systematically engaged (GBP 166 million awarded to 213 projects).
- **Consolidating** (2004-07): There was a shift to metrics-based funding for all eligible HEIs whilst reserving one quarter of the total fund (GBP 238 million) for innovative consortia, typically cross-regional teams working in emerging technological fields (11 in the first round).

However, there has also been a shift in the government's attitude to the "regions", which has evolved in response to an entirely different set of territorial policy drivers, although ultimately still addressing England's persistent territorial economic imbalances. For a brief period from around 2000 to 2004, it appeared that England was set on an unstoppable process of devolution towards elected regional assemblies. Regional development agencies (RDAs) were created and the government invested much effort in encouraging other "regional" bodies to be formed to work initially with RDAs and eventually with the elected assemblies. Funding was provided to create higher education

regional associations to help universities work effectively with the other new institutions. However, following a “no” vote in the first referendum on elected regional assemblies, there has been a steadily declining interest in the regional scale and for collective regional activity by universities, with more emphasis being placed on localities and city-regions (HM Treasury *et al.*, 2007).

In this period, there have also been a number of other changes which have more indirectly impacted on universities’ knowledge transfer activities:

- A business advice organisation for small businesses, Business Link, was created, then repeatedly reorganised, disrupting efforts to develop links with academics to help firms get over the threshold into universities.
- European regional development funds have been (in some regions hugely) important since the early 1990s when UK universities were granted access to these funds. As these funds are now being shifted to the new European Union member states, these resources are not available as freely as before, and activities dependent on those funds may be jeopardised.
- In 2004, the Treasury introduced a new tax avoidance regulation that penalised spin-off companies, so universities suspended much spin-off activity for 18 months until the situation was resolved.

Thus, although the United Kingdom and England can be characterised as moving towards a more favourable environment for the promotion of universities’ knowledge transfer, there is still a degree of volatility and friction between competing policy drivers. How has this volatility affected universities’ institutional efforts to build up capacity to interact more effectively with businesses? To explore this we consider one knowledge transfer activity in one UK region which has dealt with this volatility, and has helped create a more receptive environment within regional universities for the “third mission”.

Knowledge House emerging as a North Eastern institution

The North East of England is an old industrial region, which industrialised from the late 18th century onwards, but since 1900 has entered a prolonged and steady period of structural decline, failing to establish strong market positions in emerging new technology industries. In the post-war period, this decline was partly mitigated through attracting inward investment, whilst a number of businesses established R&D activities in the region, notably utilities firms (including electricity, water and gas), in the chemicals sector on Teesside, but also in shipbuilding, where the region hosted the national British Shipbuilding Research Association. However, from the 1980s, these activities came under increasing pressure from deregulation, privatisation and cost reduction. There did not appear to be critical mass within the existing business R&D base to develop new industries to replace the jobs lost from the

region, and inward investment could not provide an easy or quick fix to these more deep-seated structural problems.

The five regional HEIs, Durham and Newcastle Universities, and polytechnics (higher professional universities) at Newcastle, Sunderland and Teesside seemed to offer a source of regional modernisation, with the potential to create new industries, raise regional growth levels and tackle high unemployment. Local government (municipalities) was at that time investing in technology centres as part of efforts to help regional businesses deal with technological change, particularly automation (such as numerical control) and computerisation. These centres developed varying degrees of linkages to the five regional HEIs. Arguably the most closely linked centre, Newcastle Technology Centre, was created by Newcastle City Council, the polytechnic and university; this was not immediately successful, and evolved over five years into a regional technology centre (Loebl, 2001).

At that time (1983), the five regional HEIs identified a clear value in working together **collectively**. This was because of the very small size of the local market for technological services for small and medium-sized enterprises (SME), the fact that UK universities at that time were not able to access European funding for regional development, and the relatively high start-up costs universities faced in establishing dedicated technology transfer activities. A scheme was initiated by Newcastle University, HESIN (Higher Education Support for Industry in the North), in which the other four HEIs were involved. As an independent organisation, HESIN was eligible for funding from the European Regional Development Fund (ERDF) which ensured its survival and allowed it to become the focus of a number of other critical developments.

In 1989, the national funding council for higher education (the Higher Education Funding Council for England, HEFCE) encouraged the North East's universities to develop an MBA-level course for regional businesses. A proposal was developed through HESIN to offset individual institutional start-up costs by beginning from existing courses and creating one regional pathway through the five HEIs. This project became the "Integrated Graduate Development Scheme" (IGDS), and was generally successful in terms of take-up by regional businesses. Perhaps more importantly, its financial success (attracting around GBP 600 000 of grant funding and GBP 700 000 of industrial fees) was sufficiently eye-catching to alert the HEIs to the fact that third-stream activities could generate significant additional resources for them. The IGDS scheme ran for around two years at full power, at which point the (very limited) regional market for executive MBAs was exhausted, although the region's universities still retain the power to award joint degrees.

In 1995, a second stimulus was provided, when the Treasury changed university funding regulations permitting access to European Structural Funds. Universities preferred to bid individually for large scale infrastructure investments which supported research activities, but in it was clear that the continuing small regional market and high start up costs made commercial consultancy prohibitively expensive for a single university. In response, Newcastle University proposed a hybrid infrastructure/consultancy project proposal, for a so-called “Knowledge House”, a physical location where companies could come onto campus and ask the university for help with their technical problems. The European funding committee in the region decided that it was too infrastructure-heavy for the outcomes promised, but offered instead to fund a virtual version of “Knowledge House”, where SMEs could come to all five universities with their problems. This proposal became Knowledge House, in which a central office and co-ordinators at each university helped firms both to identify and then to deal with academics to solve their technical problems.

That activity, solving SME problems by helping them contact academics, has formed the core of the Knowledge House mission since 1995, although the organisation has developed in the ensuing decade. Knowledge House received three tranches of ERDF funding, totalling GBP 3.9 million over the period 1995-2005, as well as GBP 4.2 million from the universities’ funding council through their HEROBAC and HEIF programmes (*qv*). Knowledge House figures set out in Table 1 indicate the increasing scope and scale of activity:

- Scope: More universities and staff became actively involved in Knowledge House projects. In 1996, only three universities completed projects, whilst by 2008, all universities were active (see Table 1). With over 300 projects being completed annually, this suggests that an increasing number of staff across the region’s universities are becoming engaged with Knowledge House activities.
- Scale: The size of the projects (and the income to the university) has been increasing across the lifetime of the project, even when adjusting for inflation (see Table 2).

In 1999, HESIN became Universities for the North East (UNE, the North Eastern HERA) ostensibly to create a single university voice for the newly created RDA. Whilst HESIN was a voluntary collaboration involving pro vice-chancellors (directors), UNE involved the vice chancellors (chief executives), empowering UNE to speak with the authentic voice of higher education in the North East. UNE has been important in generating cross-university activities, including securing continuation funding for Knowledge House. A typical multi-university project successfully promoted by UNE has been the creation of “talent programmes” allowing students with a

Table 1. **Share of project numbers by participating university (anonymised)**
Percentages

	University A	University B	University C	University D	University E
1996	8	24	0	28	40
1997	9	44	15	18	15
1998	2	52	14	13	18
1999	6	47	4	27	16
2000	15	42	6	6	31
2001	20	33	2	19	26
2002	28	43	0	8	21
2003	36	42	1	12	10
2004	26	32	2	30	10
2005	16	28	2	20	33
2006	12	18	4	15	51
2007	3	9	13	19	55
2008	8	4	24	24	41

Source: Knowledge House internal management information system.

StatLink  <http://dx.doi.org/10.1787/544778024534>

Table 2. **The growth in core Knowledge House activities 1996-2008**

	Enquiries	Projects	Total value (nominal) ¹ GBP	Total value (real) ¹ GBP	Average contract (nominal) GBP	Average contract (real) GBP
1996	26	25	43 083	61 377	1 723.32	2 455.08
1997	110	101	421 872	586 841	4 176.95	5 810.31
1998	348	91	357 225	481 799	3 925.55	5 294.49
1999	318	90	443 749	578 658	4 930.54	6 429.53
2000	276	49	266 773	342 599	5 444.35	6 991.82
2001	333	87	507 490	633 013	5 833.22	7 276.01
2002	392	110	628 457	770 256	5 713.25	7 002.33
2003	490	158	863 638	1 041 141	5 466.06	6 589.50
2004	735	189	1 314 647	1 540 305	6 955.80	8 149.76
2005	740	166	3 234 835	3 680 480	19 486.96	22 171.57
2006	623	180	5 206 308	5 760 855	28 923.93	32 004.75
2007	811	364	4 685 096	5 042 925	12 871.14	13 854.19
2008 ²	461	185	3 081 191	3 213 682	–	–
Total	5 665	1 795	21 054 365	23 733 932	11 729.45	13 222.25

1. The contract values are given in nominal and real prices, indexed to retail price inflation (RPIX), taking 2008 as the datum year.

2. The 2008 figures only include projects completed and do not represent the final figures for 2008.

Source: Knowledge House internal management information system.

StatLink  <http://dx.doi.org/10.1787/544814677262>

talent for music or sport (even outside their degree) to receive high-level university coaching and education whilst studying at a North Eastern university. UNE has also co-ordinated the universities' widening participation efforts, encouraging more students from poorer backgrounds to come to university.

UNE has also acquired other elements and projects, as there have been a number of occasions where the regional universities, again motivated by economies of scale, have chosen a regional approach for developing new engagement activities (e.g. providing post-experience business education and widening participation). The Knowledge House network has grown to 14 staff, and in 2007 generated GBP 4.7 million for the participating regional institutions by delivering 364 completed projects from over 800 business enquiries. UNE co-ordinated the university's participation in Newcastle-Gateshead's (ultimately unsuccessful) bid for European Capital of Culture. Knowledge House has also been identified repeatedly as an example of best practice in university/business engagement (see *inter alia* CORDIS, 2000; SHEFC and SE, 2002; HM Treasury, 2003b; DG REGIO, 2004; Duke *et al.*, 2006; NESTA, 2007; OECD, 2009).

Top-down/bottom-up vs. regional co-ordination

The Knowledge House evolution appears to have followed a remarkably smooth trajectory given the relatively disparate national policy regimes and drivers to which it has been subjected. One way of interpreting this consistency in evolution would be to argue that what national policy has done has provided funds which in turn offer an opportunity for a time-limited experiment. When those funds have expired, successful elements have been retained and developed, whilst unsuccessful ideas have been abandoned. Yet this simple message, that universities *make* valourisation policies succeed and integrate the third mission into teaching and research activities, overlooks the point that Knowledge House is a long-lived consortium arrangement, a network which has only slowly built influence, and only very slowly changed universities' ways of doing business.

One way to consider the effects of Knowledge House is to clearly distinguish between the "top-down" and "bottom-up" effects. Knowledge House has promoted changes in the member universities' approach to technology transfer amongst senior management by both creating a need for them to be regionally engaged and demonstrating the value of technology transfer. Knowledge House has helped to support the pro vice-chancellors responsible for engagement by offering a task for them to work on collectively, overseeing Knowledge House through UNE's business and enterprise committee. Knowledge House as an acknowledged best practice in regional engagement has also become emblematic of the universities' commitment to

Table 3. **Reference to Knowledge House in institutional HEIF3 reports**

University	Internal	External
Durham	*	*
Newcastle	"Risk management [of knowledge transfer projects] will be delivered at the project level through the Knowledge House Information System."	"Knowledge House collaboration across the Universities for the NE continues to be important and will be supported by a dedicated allocation from each University in the NE."
Northumbria	"Providing an interface with business through Knowledge House, which has been running successfully for over 10 years. Core activities focus on consultancy and access to facilities, but the portfolio of services will diversify through this collaborative network."	"HEIF funds will be used to retain the local Knowledge House staff on permanent contracts and also contribute to central Knowledge House services, covering a range of business development and marketing functions at regional level."
Sunderland	**	"The University will commit some of its HEIF3 funding to continue its Knowledge House activity for 2 main reasons. Firstly the Knowledge House clearing house demonstrates a clear commitment to business and the community that the regional universities will provide the best possible response to their enquiry. Secondly the partnership enables collaborative activities at a scale the University would not achieve on its own."
Teesside	"Objective: Integration of Knowledge House delivery with institutional activity. Benefit: Robust collaborative network with complementary strengths."	"Knowledge House activity and targets form a central plank in our strategy, delivering an enhanced coordinated HE service to business and stimulating additional contracts."

* The Durham HEIF3 plan is much shorter than the other universities' – 500 words in comparison to 1 500-1 900 words for the others – and so there is less space to mention Knowledge House.

** Sunderland does not mention here internal benefits of the HEIF programme, but does in HEIF4.

Source: University institutional HEIF reports, www.hefce.ac.uk.

the region (see Table 3). The universities value this – and hence regional engagement – as an opportunity to win additional funds from regional bodies.

Since 2007, Knowledge House has been funded directly by university subscriptions without an underpinning direct subsidy. This implies that Knowledge House has stimulated development in the attitudes and behaviour of university senior managers, and that they are now willing to invest core resources in knowledge transfer activities. Knowledge House is also mentioned in the knowledge transfer reports that the regional universities supply to the national funding council, the so-called HEIF (*qv*) proposals, as a means of co-ordinating internal knowledge transfer activity as well as promoting better collaboration between universities in business interaction.

From the bottom-up, Knowledge House has also been important in changing the behaviour of academics towards commercialisation, hence contributing to the evolution of a more engaged (if not entrepreneurial) culture within the region's universities. In 2006, an analysis of ongoing user surveys highlighted that Knowledge House was increasingly well regarded by

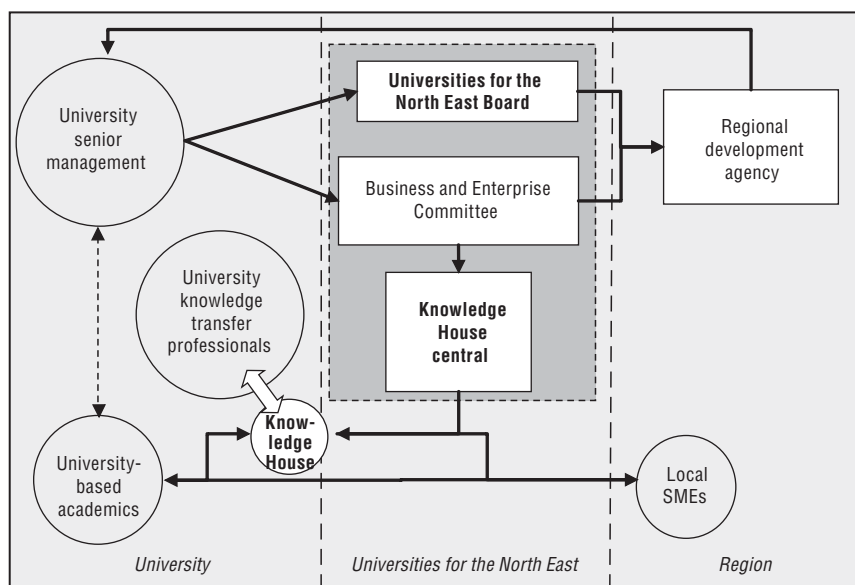
its customers – customer satisfaction rose from 77% (2002) to 94% (2005). From the academic perspective, Knowledge House does act as an opportunity creator, releasing the academic from the need to undertake acquisition work; Knowledge House also manages the contractual situation for the academic which allows the client to receive the knowledge without the academic having to alter their behaviour so extensively. The funds generated by Knowledge House also flow directly to the academic's work group and so can help to directly strengthen the research group. The figures in Table 1 suggest an increasing number of academics choosing to engage with regional businesses through the service. Knowledge House has also therefore reflected in part a development in the attitudes and behaviour of academics in the regional institutions.

These two effects, both on constituent parts of the regional universities, have evolved in tandem with each other. On the one hand, university senior managers have experienced a rising interest in the regional engagement agenda (as demonstrated by their increasingly direct and unsubsidised support for Knowledge House). On the other hand, and in parallel with that, increasing numbers of their academics are experiencing the benefits of becoming more commercially engaged, and enjoying the experience. Thus, HEIs have become more regionally engaged without the managers having to take potentially antagonistic steps to compel commitment by their staff, whilst academics have had an encouraging organisational framework to support voluntary regional business engagement. Knowledge House has also been able to be extremely experimental as a place where risky reach-out activities can be attempted, whilst preventing failures from “contaminating” universities’ core interests and brands.

Knowledge House is an interesting vehicle, because it was established with the “third task” as its first mission, namely answering the enquiries of entrepreneurs; it is left to individual academics to resolve the tensions which arise in responding to opportunities, rather than trying to change the course of the five universities which one interviewee likened to that of a super-tanker. One way to conceptualise this is that Knowledge House has played the role of a co-ordinating mechanism which has allowed university senior managers and their academics to develop in a coherent direction without creating friction and resistance through direct relationships. This co-ordination role is set out in Figure 1.

The Knowledge House institution has developed because its network connections appear to have allowed it to become the answer to a range of external demands placed upon the university. This arrangement satisfies the needs of both university managers and academics by permitting engagement, without that engagement being dependent upon initiating significant institutional upheaval or negotiation between these two levels. These networks are supported by a community of knowledge transfer professionals

Figure 1. **The role of Knowledge House in co-ordinating tricky institutional change in universities in the North East of England**



in Knowledge House and the universities. Universities have evolved towards a more engaged position with closer relationships between core funding streams and regional engagement.

What is striking is that the arrangement in Figure 1 has no clear imprint from any of the policy streams developed by the national government. Although Knowledge House was created before the first wave of governmental interest in commercialisation policy, it has nevertheless engaged extensively with the policy waves (as shown above in section “The evolving policy environment for English knowledge transfer”). Knowledge House remains an elusive example of best practice that other UK regions have sought to copy, yet we are aware of none that have successfully replicated its dual role as an agent of change and provider of commercialisation services. This raises an interesting set of conclusions for developing policies to effectively encourage universities to change their practices towards commercialisation and community engagement.

Conclusions: lessons for institutional building in higher education

The policies in the United Kingdom adopted for commercialisation by universities appear to be based on a relatively simple model of organisational change within HEIs, which does not fit well with the longer term processes in evidence in the North East of England. As we have noted, the universities have

been generally speaking keen to become more engaged but have needed a successful example to give them the confidence to invest their own resources in engagement activity. In each policy intervention, a fund was created in which universities bid institutionally for funding and then were responsible for driving through the necessary changes in their institutions. However, in some cases, the projects were delivered without driving through cultural changes within the university, so that the projects did not offer a sound basis for continued development of an engaged culture within the university (cf. HEFCE, 2006).

The Knowledge House project *did* contribute to cultural change, but as one part of a longer-term reorientation driven by the universities themselves and supported by a number of government policies, which encouraged external partners to demand (and reward) universities to change their behaviour. Knowledge House became a means to make several incremental cultural changes at different levels of the university simultaneously without creating conflict and resistance within those institutions. Part of the change was in creating a new grouping within the university, the knowledge transfer professional, but equally important was in raising that group's status in the eyes of other groups within the universities, the senior managers and the academics.

Knowledge House is an external activity which has nevertheless been part of an evolution of the regional universities' attitudes to commercialisation. But its purpose has not been to change attitudes, rather it has provided a loose coupling between different segments of the university: this allows institutional changes to be supported by both managers and academics, rather than using an ill-fitting hierarchical, top-down model of institutional change makers. Change has been embedded within a larger organisation, UNE, which assembles and co-ordinates the universities' corporate interests, providing Knowledge House with a degree of stability as an external organisation. As Clark (1998) indicates, it can be extremely difficult for universities to maintain commercialisation organisations because they drift institutionally to the edge of universities, from where they are easily closed down. Knowledge House has been anchored in the individual institutions by a kind of peer pressure provided by UNE's Business and Enterprise Committee.

We stress the importance of the "engagement community" – in both Universities for the North East and the universities, which make engagement work and make it something that both academics and university managers can support. The community are focused on delivering the primary process, namely getting academics to answer business questions. However, the experience of delivering this primary process, and its visible success and support across UNE and its member institutions, allows the community to support the development of a more engaged culture within the university.

The role for Knowledge House has therefore been to manage that community to ensure that the primary purpose is delivered, and in doing so has responded positively to a number of stimuli where they have supported this core mission. Whilst it is difficult for a single policy instrument to create a community of knowledge transfer professionals, there may be value to policy makers in using this community perspective to examine whether the various policy measures funded are supporting all the community elements necessary to incentivise HEIs at all levels to change their behaviours and become more engaged.

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The authors:

Dr. Paul Benneworth
Centre for Higher Education Policy Studies
University of Twente
7500 AE Enschede
The Netherlands
E-mail: p.benneworth@utwente.nl

Alan Sanderson
Universities for the North East
1 Hylton Park
Wessington Way Sunderland SR5 3HD
United Kingdom
E-mail: a.sanderson@unis4ne.ac.uk

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Melbourne Graduate School of Education, The University of Melbourne
153 Barry Street
Carlton, Victoria 3010, Australia
E-mail contact: jill.gaston@oecd.org

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