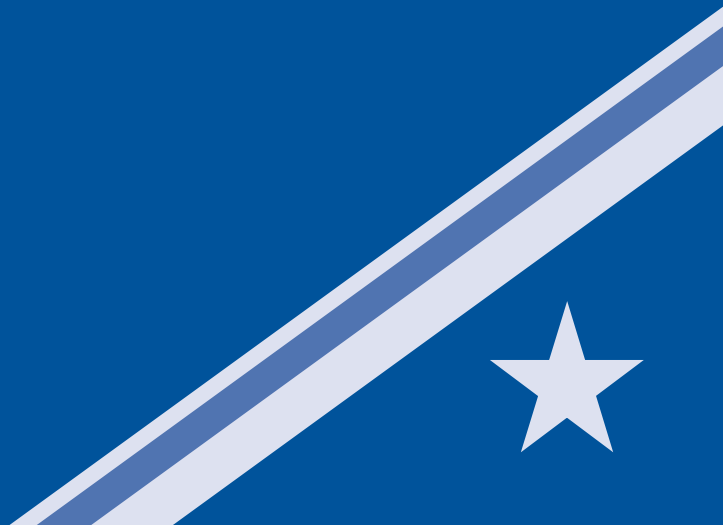
Higher Education and Collaboration in Global Context

Building a Global Civil Society



UK/US Study Group

A private report to Prime Minister Gordon Brown

July 2009

Summary

This report makes the case for a new model for UK/US collaboration, one that will develop multilateral partnerships and bring the longstanding UK/US partnership in higher education to bear in third locations. It argues that if the UK and the USA are to continue to assert their primacy in the realm of higher education (HE) within an increasingly competitive global context, they will best do so collaboratively. The emergent global HE picture represents a challenging but ultimately promising framework for newly-envisioned UK/US collaboration.

Now, more than ever, collaboration across borders among our leading universities is absolutely necessary. The strength of the UK/US partnership, the longstanding preeminence of the two countries in the HE sector, and, more recently, the unfolding of the global economy, validate the case for deepened – and internationalised – collaboration. Furthering the UK/US collaborative HE relationship can no longer have as its sole goals mobility and partnership between the two, nor the advancement only of UK and US interests. The biggest challenge ahead is to focus on ways of extending the UK/US model to third locations. This will enrich immensely the universities of both countries, foster the growth of an open, competitive and accessible HE sector in other nations, and constitutes a vitally important form of soft diplomacy and power. Most critically, it will foster – if framed by ambitious initiatives – the development of a 'global civil society' which will bind universities and countries together through common values and principles, and counter the centripetal forces of the globalised era.

The report provides an account of the origins and purpose of the group that produced it; assesses the history of UK/US higher education partnership, its strengths and weaknesses, and current context; and gives a forecast of developments with which the partnership must engage. Most critically, it makes a case for the absolute centrality of higher education in this emerging world, and provides ideas that capitalise on that centrality and begin to orient the longstanding UK/US partnership toward the globalised world before us for the creation of a global civil society.

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1 Background

1.1 The origins and purpose of the UK/US Study Group

In the spring of 2008, Prime Minister Gordon Brown approached Rick Trainor, the Principal of King's College London; and John Sexton, the President of New York University. Would they draw together a small group of higher education leaders to engage in a set of conversations on the state of UK/US collaboration in a global context? And would the group be willing to provide a short paper encapsulating their thoughts? The proposition was bold – encompassed within it was a tremendously challenging series of questions, ranging from the role of HE in civil society, to global economic trends, to the meaning of cooperation in a fundamentally competitive world. Indeed, part of the group's mandate would be to respond to such pressing underlying questions.

Trainor and Sexton agreed. Through the series of consultations requested by the Prime Minister, the group they pulled together worked over a six month period toward producing a white paper offering an analysis of the position of UK and US universities in the emerging global environment, flagging strengths and weaknesses; proposing pathways to stronger relationships between them; and offering ways to enhance their global positions and contributions, separately and in tandem. This document is that paper.

Sections 1–5 provide information on the group itself, the group's view of the basic principles that have guided UK and US HE to a position of preeminence, and the general history of UK/US collaboration. It is in Sections 6 and 7 that readers will find the real 'meat': an assessment of what the world ahead holds for HE in our two countries, and the group's recommendations for meaningful UK/US collaboration within it.

The group's members are: Janet Finch, Christopher Snowden, Eric Thomas, Nigel Thrift, Rick Trainor (UK) and Robert Berdahl, Molly Corbett Broad, Jane McAuliffe, John Sexton, and Shirley Tilghman (USA).[1] In addition, Shaun Curtis serves as deputy to Rick Trainor, and Katherine Fleming as deputy to John Sexton.

1.2 The context, bilateral and global

From the start, the group was unanimous in the view that its recommendations could not afford to be simply 'more of the same'. UK/US collaboration in higher education, strong as it is, has established well-worn pathways – student and faculty exchanges, joint degree programmes, fellowships that promote mobility, and most ambitiously, networks of universities that have come together to leverage collective strength.[2] While these are certainly not to be jettisoned, and indeed need in many respects to be strengthened, the relevance and vitality of collaboration in the emergent global context will rest on our ability to come up with new models for partnership and ambitious goals as to what it might accomplish.

1
Full biographies of all committee members appear in Appendix A.

2
Again, Academic Consortium 21 (AC 21), the International Alliance of Research Universities (IARU), and Worldwide Universities Network (WUN) are examples.

Higher education has entered an unprecedented period of 'globalisation' – western universities are opening branch campuses abroad and at the same time attracting ever-growing numbers of international students to their home campuses; students from the USA and UK increasingly view time in another country as an essential component of their educations; nations around the world are ploughing vast sums of money into creating and building their own HE sectors.

This context presents huge challenges but also huge opportunities – and demands some sort of sustained attention on the part of HE leaders, who must ponder the opportunities it might present for UK/US collaboration, and for the reassertion of HE as a – perhaps *the* – central public good. The longstanding tradition of bilateral ties between the UK and US in higher education provides the rationale for drawing together the universities of the UK and the USA in this endeavor. Indeed, in many ways these educational ties have long been one basis for the so-called 'special relationship' (though in recent years that relationship has to a degree been commandeered by other concerns – security, for instance, and military partnership). In the challenging new global context, there is a need to refocus the special relationship between the two nations on the core values upheld and fostered by HE. Universities are the freest places in our societies. Reasserting this fundamental strength – and reclaiming the principles that guided us before 11 September 2001 – must be the bedrock of future UK/US collaborations.

Within both the UK and the USA, the HE sector has long held a position of prominence and prestige – though there are signs that this position is under threat, even as greater demands than ever are being placed upon HE. Universities are viewed as an engine for ameliorating an array of social ills, from poverty to security, yet in both the UK and US contexts, HE institutions are subject to resource constraints and to intense competition. Globalisation represents the latest, and likely most transformative, competitive arena that our countries face. Even as we determine how best to move together within a broader global context to strengthen the ties between our universities, we are each respectively working to strengthen our own institutions. What prevails, then, is something that might best be termed 'coopetition', a forceful driver in the global expansion of HE. This report endeavors to make the case for UK and US HE as the sector most uniquely equipped to engage globalisation and to shape the global intellectual community arising from it. In doing so, the report argues for the creation of significant programmes to turn competition to cooperation for common advancement.

2 An overview of UK/US commonalities, strengths, and core characteristics related to strength and pre-eminence

2.1 Summary and background of core shared strengths

There are obvious and major differences between the higher education systems of the UK and the USA – their funding sources, histories, and degree structures are perhaps most obvious. Nevertheless, the higher education systems of the USA and the UK have a good deal in common. The history of collaboration between them underscores this closeness: the longest-standing and best-known international exchange programmes, such as the Rhodes and Marshall scholarship funds, are examples, as are the huge numbers of students that travel between them each year. In 2007, for example, almost 33,000 students from the USA went to study in the UK, more than went to any other location[3] (though statistics suggest that the UK may be losing its 'stranglehold' over the US study-abroad market). Worldwide, anglophone HE modelled explicitly on the systems of the UK and the USA is being actively developed: India, for example, recently announced that over the coming five years it plans to build 16 new universities, loosely on the American model, with significant input from UK higher education.[4] The USA and the UK remain pre-eminent in HE, the most emulated and most popular as a study abroad destination for overseas students. The constituent points of commonality between their systems, however, rarely have been systematically laid out. As a starting point, the group thought it useful to undertake an analysis of the common characteristics and strengths of the higher education systems of the two nations. In discussion, eight rapidly emerged as particularly noteworthy:

- quality
- values/academic freedom
- structure/intellectual breadth
- governance
- research strength/knowledge transfer
- access/open competitive environment/peer review
- financing
- international orientation (students and staff).

Each is considered briefly here in turn.

2.2 Quality

Rankings lists of all sorts are uniformly dominated by UK and US institutions,[5] and the two countries have long been the destinations of choice for students coming from abroad who are willing to travel long distances in order to obtain a quality education.[6] While ranking systems vary in their criteria, by pretty much any measure findings are similar.

3 IIE, *Open Doors Report*, 2008. See also for a summary: 'UK top destination for US scholars', *International Focus*, Issue 29, November 2008, p5, available at www.international.ac.uk

4 www.universityworldnews.com/article.php?story=20080117161309513

5 And, within those, by a handful of individual universities, such as Oxford, Cambridge and colleges within the University of London in the UK, and Yale, Princeton and Harvard in the USA.

6 To give but one example: according to the Times Higher Education/QS Quacquarelli Symonds World University Rankings, four UK universities are now in the top 10, and six from the USA. (*THES-QS World University Rankings*, 2008).

One hypothetical question to which the group turned its attention was this: 20 years from now, on a list of the world's 100 top universities, how many will be in the USA or the UK? How many will be in countries not presently represented on world rankings lists? For the UK and the USA, it should be a high priority to sustain the prominence of our own HE systems in the global context. At the same time, there are clear benefits to be gained by *all* from the emergence of quality HE around the world. Must these objectives be mutually exclusive? Or might UK/US collaboration in HE find one of its most useful marks precisely in helping promote and generate quality HE around the world?

2.3 Values

The excellence of the UK and US systems of HE rests in large part on shared values, particularly those linked to strongly-held notions of academic freedom. From peer review, to scholarly work, to promotion processes, to curricular development, to faculty freedom in the classroom – essential elements of quality rest on the principles of academic freedom. Most fundamentally, the great universities of the UK and USA share the belief that freedom of inquiry of both faculty and students is central to the academic mission. The idea of freedom of inquiry (*Lehrfreiheit*) derives originally from Germany; in the 19th century, US scholars returning from Germany implanted it as a feature of US HE. In Britain, the Scottish Enlightenment and its English counterpart embedded such autonomy as a fundamental element of universities by the late 19th century. Today, four HE systems – the UK (and Commonwealth – Australia, New Zealand, Canada), US, French, and German – treat it as a bedrock principle of the academy. True knowledge, it is held, can only be generated in a context in which students and faculty alike have an uncompromised right to question received wisdom and to consider unpopular or unheard of opinions, views, and propositions without fear of interference or recriminations.

While the principle of academic freedom is taken seriously in the UK and the USA, this is far from the case in many other world contexts. Prominent cases involving the imprisonment of scholars for espousing views or conducting research that do not conform to the dominant political or social positions of their government – in Egypt, Turkey, China, and a number of other countries – have led to the creation of such watchdog organisations as Scholars at Risk, which attempt to export and apply principles of academic freedom to foreign contexts and bring to bear the weight and influence of the UK and US HE establishments on behalf of scholars who do not enjoy academic freedom in their home contexts.[7]

7 See, for an overview, Robert Quinn's article, 'Defending 'Dangerous' Minds', published by the SSRC in 2004, www.ssrc.org/workspace/images/crm/new_publication_3/%7B5cebcead-2d60-de11-bd80-001cc477ec70%7D.pdf

As UK and US universities increasingly venture abroad, they must carry with them the commitment to the core value of academic freedom. Perhaps more than any other single intellectual 'export', this one may have the most critical global importance. The UK and the USA alike have long known that one advantage to hosting overseas students is the opportunity to expose them to the principles of academic freedom. The US Fulbright programme, to give but one example, was largely founded on this basis. As our paradigm for global education shifts, and increasingly involves the movement of UK and US institutions to international contexts, there is an opportunity to assert the commitment to academic freedom, in ever more diverse contexts – and the challenge to do so with sensitivity.

2.4 Structure/intellectual breadth

The universities of the UK and the USA are striking for their structural similarity, particularly in academic matters. Both take seriously the medieval notion of the 'university' as being a community of teachers and scholars (*universitas magistrorum et scholarium*). The emphasis, perhaps, is strongest on 'community': a university allows for tremendous intellectual breadth concentrated in one place. The universities of the UK and USA are organised around a set of core disciplines that have not changed to any great extent over a long period of time. These have been added to as new fields of inquiry arise, such as neurosciences or linguistics, but the core has remained the same. The inclusion of different subjects is not decided upon (at least, ideally it is not decided upon) by what may or may not be in intellectual vogue at any given moment, or by the market, or by other trends. As one observer puts it, 'There has seldom been a higher academic ideal: good people embarking on the living study of great books in order to do good work in society'.[8] While it is important to be open to the expansion of the canon to new 'great books', those that have proved their worth over centuries of study endure. Or as President John F Kennedy famously put it, in explaining why the arts are a critical part of a university's portfolio, 'art establishes the basic human truths which must serve as the touchstone of our judgment.' Our universities often fall far short of this ideal, of course – but it is striking nevertheless that pursuit of such a worthy ideal binds the UK and the USA.

Other shared features of institutional structure are the range of degrees offered and the belief that vitality of a discipline rests on faculty or academic staff that is actively engaged in both teaching and research (indeed, that the two are connected). Universities both disseminate and produce knowledge. Thus teaching and research in both contexts is structured around terms (or, in the USA, 'semesters') that allow for a greater diversity and number of courses offered and taken, for greater mobility of students both to and from the home institution, and for research to be more easily integrated into work.[9]

8
William C Kirby, 'On Chinese, European, and American universities', *Daedalus*, 137.7 (Summer 2008), p139

9
In distinction, the 'continental model' (also in place at a number of Middle Eastern institutions), tends to offer courses over the length of the entire year, with exams only at the end (the UK model might more accurately be described as a hybrid of the two).

2.5 Governance

The leadership of universities in both contexts is held by academics – that is, presidents and vice chancellors are individuals who have themselves usually come up through the faculty ranks, and as such are sensitive to the privileges of autonomy and self-governance enjoyed by the faculty (or academic staff, as it is called in the UK).

The university leadership reports to a board of governors or trustees, predominantly composed of people who work outside the academy, but the leadership exercises a high degree of autonomy, particularly in academic and intellectual matters, from that board. The board primarily provides custodianship of the material features of the institution's well-being, but does not set its intellectual agenda. This is the domain of the academic and faculty leadership of the university, operating through a range of faculty committees with broad powers as advisory and voting bodies. As higher education 'goes global' this would seem to be a particularly important feature of university governance to retain, export and expand.[10]

2.6 Research strength/knowledge transfer

The UK and the USA are the primary engines in the global dissemination of knowledge, accounting for a huge portion of the resources spent on research and development and thus are the primary engines of progress in the global knowledge economy and the practical economy as well.

The USA accounts for 40% of the world's total spending on scientific research and development, employs 70% of the world's Nobel Prize winners, is home to three-quarters of the world's top 40 universities,[11] and invests 2.6% of its GDP on higher education (compared to 1.1% in Japan and 1.2% in Europe).[12]

For its part, the UK has 1% of the world's population but undertakes 5% of the world's scientific research and publishes 12% of all cited papers.[13] The UK hosts about 50,000 international postgraduate research (PGR) students, second only to the USA, and 42% of all PGR students in the UK are international (as are 33% in the USA).[14] The UK also sells more brainpower per capita than anywhere else in the world. In 2005, this amounted to £75b in knowledge services – a quarter of all UK exports – and now worth some 6.3% of GDP.[15]

As these figures suggest, the universities of the UK and the USA carry a huge burden – one that has become part of their mandate, but that was never explicitly designated as such: to serve as the principal drivers for the movement of ideas and innovation around the world. The economic resources poured into HE research and development by the UK and the USA represent a public good within the UK and US contexts, to be sure – but increasingly they also represent a distinctly *global* public good. And as such, the investment is actually relatively small.

10 In both contexts, too (though more so in the UK than the USA), the question of the power of governments is at play.

11 RAND Corporation, 2008.

12 Center for European Reform report, 2006.

13 *The Economist*, 2007 – 35% of 700,000 catalogued research articles published by UK-based researchers over the last 10 years have a co-author from another country, most commonly the USA (RCUK, 2007).

14 UK HE International Unit, 2008.

15 Work Foundation, 2007.

2.7 Access

Interwoven with the principle of academic freedom is the unprecedented meritocratic degree of access offered by the UK and US HE environments. What determines student access is quality, not the personal status of an individual (or, as in continental Europe, mere residency); collaborations are undertaken primarily on the basis of shared intellectual interests and the common desire to expand knowledge. This is now seen in the opening of the UK and US research environments to partnerships with overseas collaborators. Some 40% of UK scientific output between 2001 and 2005 involved international collaboration, a 50% increase over the previous five years.[16] In the USA and the UK alike, China is emerging as the key partner, with an array of institutions setting up branches and research collaborations, and with China supplying with world's largest number of students studying abroad.[17] A major draw for such students is the unprecedented level of global access, not least to subsequent employment, provided by institutions in the USA and the UK.

2.8 Financing

The common excellence of UK and US universities is not simply a happy coincidence. In both contexts significant financial support is given to the HE sector by government, and, in the USA (and increasingly in the UK as well), by private philanthropy: In the USA, private giving brings the overall investment in universities to 2.9% of GDP. This is almost three times that in the UK, at 1.1% of GDP.[18] In the UK, charitable giving accounts for about 0.6% of GDP and 0.7% of income for universities, and is rapidly growing. In the USA, the figures are 2% and 8% respectively.[19]

But this investment must be considered against the scope of what is expected of universities, and what they bring into their domestic economies: universities are worth £45b to the UK economy annually and are a major export earner. The annual contribution to the UK's national income made by international students alone is estimated at £5.5b.[20] In the USA, it is estimated that international students made a $13.5b contribution to the economy in 2005.[21] There have been recent instances where UK and US institutions have entered into partnership agreements in conjunction with economic development agencies on both sides of the Atlantic, with the aim to boost the transfer of skills and innovation into local economies.[22]

Universities in the UK and USA place great emphasis on the quality and extent of the physical and less tangible infrastructural elements that they are able to provide to their faculty and students, from residential halls to world-class laboratories to gymnasiums. Increasingly, universities serve as infrastructural hubs for the communities in which they are located – supplying not only jobs and increasing the prosperity of their hometowns, but also driving regional research and providing community services ranging from athletic facilities to library access. Such contributions cannot be calculated in monetary terms alone.

16 Evidence Ltd, 2007.

17 Universities UK/UK HE International Unit, 2008.

18 OECD, 2006.

19 Sutton Trust, 2003; RAND Corporation, 2004.

20 HEPI, 2007.

21 NAFSA, *An International Education Policy for US Leadership, Competitiveness, and Security*, October 2007.

22 See for example, 'From Hertfordshire to Silicon Valley', *International Focus*, Issue 26, October 2008, p6, available at www.international.ac.uk

2.9 International orientation

The group noted the striking emergence of another key similarity: diversity and multiculturalism of both faculty and student body. The group termed this 'internationalism at home and abroad' – an internationalism that derives both from the growing diversity of the UK and US populations (and consequently, of their campus populations, as well), and from the growing desire of faculty and students to venture abroad. The group found this a relatively recent point of comparison: it is striking both as a domestic feature of the landscape (through immigration to the USA and UK) and as part of the 'internationalising' mission of many UK and US institutions (the effort to draw foreign students, the development of an international faculty, and study abroad programmes). Here, too, some figures are illuminating:

- In 2004, 2.7m students were enrolled in universities outside their countries of citizenship. In 2005–06, six countries hosted 67% of these students (23% in the US, 12% in the UK, 11% in Germany, 10% in France, 7% in Australia, and 5% in Japan).[23] About 20% of UK academic staff are from abroad and this will increase over time as 27% of academic staff appointed in 2005–06 were from abroad.[24]
- These figures reveal the very dramatic extent to which 'internationalisation' is not simply a goal for UK and US HE, but is in fact already very much a reality. The group found it important to probe the extent and meaning of such internationalisation, and encourages more systematic thinking going forward in terms of how UK and US institutions might work together to deepen it.

23
UNESCO, 2006.

24
Universities UK, 2007. Rankings calculations award UK institutions a 100 for internationalisation of faculty, in contrast to US institutions, which are given a grade of 60. www.usnews.com/articles/education/worlds-best-colleges/2008/11/20/international-student-and-international-faculty-factors.html Figures for the USA are difficult to assess, however, as most listings of 'international' faculty only consider those who are legally considered non-residents (ie those with a 'green card' are not considered international). Thanks to Young Kim and Madeleine F Green of the American Council on Education for this information.

3 UK/US HE collaborative activity and trends

Numerous bodies exist that catalogue, track, and foster US/UK collaboration in the higher education sector.[25] Rather than attempt a (poor) replication of their valuable work, the group chose to focus not on providing a comprehensive overview,[26] but rather on an analysis of the status quo. What are the positive and negative aspects of the UK/US HE relationship as it stands today?

3.1 The origins of UK/US collaboration

Today, when we speak of the 'internationalisation' of HE in the UK and USA we are speaking about a process that is increasingly truly 'global'. It is now the norm for UK and US institutions to have contacts not just with their anglophone counterparts across the Atlantic, but also with institutions from across the globe, often in multilateral networks as well as bilateral partnerships. From its inception, however, 'internationalisation' in HE meant first and foremost partnerships and collaborative undertakings between institutions in the UK and the USA. The Fulbright and Marshall scholarship funds (both founded with an unabashedly geopolitical set of interests); the Rhodes Trust (founded in 1902) and Harkness Trust (1925), the best-known and oldest large-scale initiatives; and a handful of similar transatlantic programmes had established 'study abroad' as a feature of the American higher education environment by the middle of the 20th century. All revolved around the exchange of students and faculty between the UK and the US. It is on the shoulders of this transatlantic base that the subsequent more far-flung 'internationalisation' of the sector stands.

Soon after the mid century, US and UK HE began more fully to internationalise, with the UK following the USA by about a decade. On the US side, 'study abroad' as we know it today became a major educational sub-industry, with the establishment of the Council on International Educational Exchange (CIEE) created in 1947, and various organisations that enabled student mobility founded at the same time. By the early 1980s, 'junior year abroad' and its variants were common features of many US undergraduate programmes.

3.2 UK/US higher education collaboration today

The UK remains the number one destination for US students who wish to study abroad, making up 18.2% of the total of American study abroad destinations worldwide.[27] And despite efforts (through the ERASMUS programme) to promote mobility of students between different European nations, UK students still prefer to spend time in the USA: in 2006–07 there were 8,438 UK students in US universities (compared to 7,235 on European ERASMUS programmes).

25 To give but a few examples: RCUK (which maintains an office in the USA); American Council on Education (ACE); Council on International Education Exchange (CIEE); Institute of International Education (IIE); UK Higher Education International Unit.

26 A listing of key trends and activity in the UK/US collaborative area can be found in Appendix B, graciously prepared for the group by Helen Thorne, Director of the US office of RCUK.

27 www.britishcouncil.org/usa

At the same time, the number of US students interested in completing their entire degree programme (be it graduate or postgraduate) in the UK has grown steadily. The number of US students pursuing an undergraduate degree at a UK institution has increased by 133% over past eight years (from 1,250 in 1996–97 to 2,920 in 2004–05), while US students pursuing a postgraduate degree in the UK saw a 28% increase between 2002–03 and 2004–05 (to 8,545).[28] This trend is particularly pronounced in professional fields.[29] For their part, students from the UK are interested in pursuing courses of study in the US in ever-growing numbers. Just five years ago Harvard received fewer than 200 undergraduate applications from the UK; last year the number was close to 300. Yale is deliberately targeting UK students for recruitment, and has started to use A-Level results as one index for admission deliberations. From 2005–06, the number of UK applicants to Princeton rose from 61 to 100.[30] This trend is particularly pronounced amongst elite schools.[31]

3.3 UK/US higher education collaboration and the emerging global context

This landscape is gradually beginning to change, however. A rapidly accelerating trend since the 1990s has been the much broader array of nations involved in HE international exchange. While anglophone countries (primarily the UK) remain the top choice destination for American students, the numbers have dropped slightly over the past years, even as overall study abroad numbers have risen. And while Italy, Spain, and France rank second, third, and fourth after the UK, Europe no longer holds a monopoly over the study abroad market: China, India, Argentina, and Brazil are quickly rising on the list, as are a number of African nations. A number of factors have contributed to this trend, all linked to growing awareness of globalisation. After the terrorist attacks of 11 September 2001, in particular, there seems to have been a major expansion of students' desire – and need – to know more about the larger world. As Allan Goodman, President of the US-based Institute of International Education, puts it: 'What Americans are doing is waking up and discovering there's a world out there'.[32]

This 'awakening' has created a new tension in UK/US relations in the HE sector over whether the 'special relationship' will become competitive as much as cooperative. While for decades the emphasis was on fostering contacts and flows between the UK and the USA, we are seeing universities in the UK and the USA beginning to reach out to the world (the establishment of study centres and campuses in disparate locations, the development of programmes that foster student flow to an ever-growing list of destinations) to draw growing numbers of international students. Foreign students in the UK represent a very important, and increasing, source of revenue. In the USA, too, international students are an important 'import', providing an estimated $13.5b infusion into the economy, with the US Department of Commerce calling higher education the country's fifth-largest export in the service sector.[33] Indeed, public intellectuals increasingly make the argument that, as Fareed Zakaria has put it, 'higher education is the United States' best industry'.[34]

28 Higher Education Statistics Authority [UK] (HESA).

29 Jeffrey Stinson, 'More US students go abroad for their MBAs', *USA Today*, 7 June 2007.

30 http://news.bbc.co.uk/1/hi/education/6135310.stm

31 As one recent article on the topic puts it, '[In the UK], schools, and pupils, no longer automatically see Oxford and Cambridge as the pinnacle of achievement'. Nicola Woolcock, 'UK students set their sights on America', *The Times*, 13 August 2008.

32 Cited in Justin Pope, 'Americans adventuresome in study abroad', *Boston Globe*, 13 November 2006.

33 Justin Pope, 'Americans adventuresome in study abroad', *Boston Globe*, 13 November 2006.

34 Fareed Zakaria, 'The Future of American Power: How America Can Survive the Rise of the Rest', *Foreign Affairs*, May/June 2008.

These trends suggest that UK and US universities increasingly vie for the same pools of students and the same sources of revenue, and are ever more reliant on wide networks of international connections as a marker of academic excellence and prestige. Little thought as yet has been given to the ways in which these trends might provide a new frame for UK/US collaboration, rather than simply foster competition between the two. This area in particular is one that strikes this group as ripe for consideration and development.

4 Assets of the UK/US higher education relationship

4.1 Existing research and teaching networks

A major strength of the UK/US higher education relationship is its stability, longevity, and vast number of 'alumni'. Over the course of the 20th century, it became a 'given' that international collaboration in HE meant, in large part, close and meaningful contact between the universities and colleges of the USA and the UK. In terms of lasting impact, perhaps the most important products of this ongoing contact are the multiple research and teaching networks it has generated – and continues to generate.[35] Academic Consortium 21 (AC 21), the International Alliance of Research Universities (IARU), and Worldwide Universities Network (WUN) are examples that show that UK/US collaboration can be fruitfully expanded into multilateral engagements across distances and cultures. The longstanding ties between the UK and the USA can be foundational in such multilateral partnerships. Just one recent example is the Sackler USA/UK Scientific Forum, to be jointly operated by the Royal Society and the National Academy of Sciences. Its primary funder has historically sponsored medical research at leading US academic centres, but the transatlantic centre not only places importance on UK/US collaborative research ventures but also signals, in the words of the donor, that UK/US collaboration in today's world is best put to international, rather than simply bilateral ends: the forum has as its mandate to address 'pressing topics of worldwide scientific concern with benefit to all peoples'. This group strongly endorses this approach and urges the expansion and leveraging of already-existing university networks, most of which are currently under-funded.

4.2 Student and faculty mobility

The UK/US partnership has been immensely successful at promoting student and faculty mobility, greatly enhancing the 'special relationship'. But the model of transatlantic mobility has widened to encompass mobility in many directions. It is not an exaggeration to say that the UK/US model for mobility has transformed the HE landscape over the past half century, making time abroad a virtually institutionalised feature of the student experience of top tier institutions on both sides of the Atlantic. The USA alone takes in 30% of the total number of foreign students worldwide.[36] In the UK, the latest HESA figures show close to 240,000 non-EU international students at UK HE institutions.[37]

At the faculty level, too, the transformation in patterns of mobility has been nothing short of revolutionary.[38] International contacts are the norm: overall, about 45% of highly-cited researchers based in the UK have spent some time overseas during their careers.[39]

35 On the importance of international collaborations, particularly with the USA, to UK research, see Universities UK, *International research collaboration: opportunities for the UK higher education sector*, research report 33.

36 Fareed Zakaria, 'The Future of American Power: How America Can Survive the Rise of the Rest', *Foreign Affairs*, May/June 2008.

37 HESA 2006–07. In addition to this figure, there are over 112,000 students from 'other EU countries' in the UK.

38 In 2006–07 there were 98,239 international scholars teaching or researching at US institutions (*Open Doors Report*, 2006). By some counts, the number is far higher; Universities UK, for example, reports that in 2003 there were 143,235 non-resident aliens employed by colleges and universities in the USA. The academic staff of UK institutions is increasingly internationalised, as well: 27% of academic staff appointed in the UK in 2005–06 were from abroad; the overall figure hovers close to 20% (*Talent wars: the international market for academic staff*, Universities UK, 2007).

39 *Talent wars: the international market for academic staff*, Universities UK, 2007.

4.3 Interest in UK/US HE systems from third party countries

As 'internationalisation' becomes a key goal of HE institutions worldwide, the universities of the UK and USA alike are more sought out than any others for the establishment of partnerships, collaborations, and educational and research networks. At the same time, HE institutions in countries around the world are increasingly following the educational model in place in the UK and USA – with liberal arts offerings, strong emphasis in sciences and engineering, anglophone instruction, and disciplinary divisions and concentrations taken from the UK and US models. They also are increasingly interested in the UK and US vision of the university as a public good and a major contributor to social stability.

The remarkable global growth of the HE sector presents a major competitive challenge to the UK and the USA, but also has proven the extent to which it is the educational models of the UK and USA that are still regarded as the most coveted and most worthy of imitation.

4.4 Intellectual capital and property in the dawning 'knowledge century'

It is now clear that the 21st century will be a 'knowledge century', in which the most important economy will be the 'knowledge economy' – and it is equally clear that, in this new century, higher education will be more important than it has ever been before.[40] Given the longstanding dominance of UK and US institutions in HE and research, the UK and the USA should fare very well in the coming century – so long as they adapt to the emerging global higher education context.

Moreover, the extraordinary mobility of academic talent – and the UK and USA the pre-eminent as drivers for it – places the universities of the UK and USA in the middle of the global intellectual talent stream. 'The flow of students across national borders, students who are disproportionately likely to become leaders in their home countries, enables deeper mutual understanding, toleration, and global integration.'[41] It also gives the UK and the USA tremendous access to the intellectual capital – not only of our own nations, but of the world.

4.5 Increasing diversity

The HE establishments of the UK and USA have experienced the diversification of their constituencies in recent decades. Its principal causes are: first, the monopoly of access to the elite universities has been broken. Second, the arrival of thousands of international students and faculty has had an important transformative effect. Third, the increasingly diverse populations of the UK and the USA in turn have vastly diversified the populations of their universities.

Collaborations between the USA and the UK are enriched by this diversity, and facilitated by the shared embrace of diversity that characterises the two countries. While third-party collaborations often founder on issues of 'cultural sensitivity', the USA and the UK are both first movers in recognising diversity as an important feature of quality HE.

40 See, *inter alia*, Carl J Dahlman and Jean-Eric Aubert, *China and the Knowledge Economy: Seizing the Twenty-First Century* (World Bank Institute, 2001); Walter W Powell and Kaisa Snellmen, 'The Knowledge Economy', in *Annual Review of Sociology*, vol 30, August 2004, pp199–220; John E Sexton, 'Fire and Ice: the Knowledge Century and the Urban University', www.nyu.edu/about/sexton-fireice.html; Fareed Zakaria, 'The Future of American Power: How America Can Survive the Rise of the Rest', *Foreign Affairs*, May/June 2008. The term 'knowledge economy' was first deployed by Peter Drucker, in *The Age of Discontinuity: Guidelines to Our Changing Society* (Harper and Row, 1969).

41 'Globalization and the University', speech given by Richard C Levin (President, Yale University) at the Poder Conference, Washington, DC, 8 November 2006.

5 Challenges to the UK/US higher education relationship

The UK/US higher education relationship has historic roots and rests on strengths that other countries will find difficult to replicate much less equal. Paradoxically, perhaps the clearest threats to the continued prosperity of UK/US HE collaboration come as much from within as from without. Some of the key obstacles to deepened collaboration have less to do with the global environment than with more national and local factors.

5.1 Funding and administrative barriers

As anyone who has worked in a collaborative academic relationship knows, there can be a big discrepancy between the dreams that animate the relationship and what proves to be possible within the frameworks that guide academic life.

At least at present, more ambitious efforts – joint degree programmes; projects involving joint capital investment; long-term research collaborations – inevitably face vexing difficulties. Differences in accreditation requirements, legal restrictions on funding access, disparities in revenue models – these are but a few of the more obvious impediments to collaboration.

In 2007, Research Councils UK (RCUK) established a presence in the USA. Based in Washington, the office promotes the movement of researchers between the USA and UK and access to facilities, data and resources. Specific initiatives such as this are to be welcomed, particularly if the threat of 'double jeopardy' on research funding between the two countries is to be diminished further.[42]

For the most part, UK and US structures (academic calendars; courses and programmes of study – not to mention the huge boon of a shared language) are compatible enough that many kinds of collaboration are possible. Few of these compatibilities are in place in other transnational contexts. Yet even between the UK and the USA, administrative structures impose limits on the ease and scope of collaboration. It may be that collaborations within a global context – particularly in third locations – present a vehicle to escape such constraints.

5.2 Rapidly intensifying competition

As the trends here outlined suggest, the globalisation of the HE marketplace is bringing with it fierce competition. The international HE sector is booming: UNESCO reports that 'there are now 138 million students worldwide seeking university degrees'. This represents a 40% increase over the past seven years. Allan Goodman, President of the Institute of International Education, points to the astonishing fact that 'there are more people around the world in universities today than probably went to university in all of history combined'. And new universities are springing up literally overnight to serve them. The lead that the UK and the USA have established is strong, but not insurmountable. As one analysis puts it, 'Although New Haven and London won't soon be replaced by Shanghai or Seoul, they have started to feel the heat'.[43]

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We support the recommendation in the recent Annual Innovation Report (DIUS, December 2008) that the UK's Director General of Science and Innovation should work with RCUK and the US science funding bodies to solve the double jeopardy issue for scientists, and would argue for greater urgency in reaching a common position and resolution of the issues.

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Philip Altbach, director of Boston's Center of International Higher Education, uses the analogy of formerly dominant national industries: 'Academic leaders are already saying that if we don't keep up, we'll be overtaken… [we] still ha[ve] a significant lead, but imagine if we had this discussion 40 years ago about the US auto industry' (In Zvika Krieger, 'Build It And They Will Learn: the geography of higher ed is changing fast', *Newsweek* online edition, 9 August 2008.

In this context, it is no surprise that the UK and the USA are concerned with maintaining their primacy in the world of HE. But if the UK and the USA are to continue to assert their primacy in the realm of HE within this increasingly competitive global scene, they will best do so collaboratively.

5.3 Political systems have difficulty operating on a global, long-term horizon

Political systems – which remain resolutely national – have a notoriously hard time effectively addressing the world's greatest problems, which are transnational and global in nature. National governments are not well designed to rise to 'global' action. Add to this the limitations imposed by election cycles, office terms, and other inherent instabilities of political systems and the temporal comes into play: just as nations have a hard time with geographic units larger than themselves, political regimes have a hard time reaching into a future that extends past their own term.

But the really big issues facing the world today require *precisely* global and long-term horizons. Global problems that threaten our collective future – nuclear proliferation, financial instability, the growing cost of energy and food, the spread of disease, climate change, population movements and dispersals – demand the application of more than specialised, or local or national, knowledge and expertise. Just as these problems have in large part been created by interconnected global factors, so too will their resolution depend on the joint efforts of many global players. Consequently, the UK/US partnership must begin addressing global issues in a more deliberately coordinated effort than ever before.[44]

Transnational HE collaboration can elude the roadblocks that make it difficult for governments effectively to address big global problems. Given that the world's universities are themselves national, this will not be easy – but one possible vehicle is multilateral and multi-member collaborations. Universities must leverage their longevity and stability, and their ability to forge international bonds to create entities that have as their explicit mandate to take on the long-term, multilateral study of the most threatening global issues. UK and US HE collaboration must place this mandate at the centre of the collaborative agenda.

At the same time, universities must continue to adjust their administrative models so as to produce more dynamic and multidisciplinary research. Big problems are by definition multidisciplinary. The major problems facing the world have such a level of intellectual and infrastructural challenge that they require a multi-country, multi-partner, and multidisciplinary approach. If they combine their resources, UK and US universities can create intellectual and research added value of level that no other two higher education systems can today. The addition of multilateral partnerships to this bilateral base provides a unique opportunity to disseminate these strengths around the world, and vastly augments our capacity to address complex global problems.

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To give but one example – that of security – iris recognition technology, now in place at border crossings and airports around the world, was enabled by algorithms developed at the University of Cambridge. Universities UK, *Spending Review 2007: Securing the future*, February 2007.

Here, however, the universities of the UK and USA may paradoxically suffer from their longstanding primacy: it can be harder to change entrenched models than to build new ones from the ground up. Saudi Arabia's King Abdullah University of Science and Technology (KAUST), for instance, will open for business in 2010. At inception, it will be the world's sixth richest university, with an endowment of $10b. 'It will also boast the globe's most revolutionary university structure – namely, no academic departments at all.'[45] Some UK and US institutions are moving towards similarly fluid structures, but will have to be on guard not to allow traditional disciplinary and administrative structures to get in the way of big thinking.

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Stefan Theil, 'The Campus of the Future', *Newsweek* online edition, 9 August 2008.

5.4 Current global economic realities validate the case for cooperation

As the group is closing its deliberations, the global economic situation is uncertain and volatile. In addition to the funding challenges that now confront even the wealthiest private universities, the global economic crisis is tempting even the most innovative HE educational establishments toward retrenchment. Those domestic constituencies already skeptical about their universities' internationalising efforts regard the global financial situation as evidence that it would be best to keep attention and resources focused on the home front. But the group believes that the current global crisis can equally be taken as evidence that now, more than ever, international HE collaboration is necessary. If anything, global economic realities validate the case for international HE cooperation – providing a form of risk management and diversification. Going forward, UK/US collaboration in the HE sector will need to be far more strategic about focusing its joint efforts to help manage and reduce economic risk.

5.5 The need for 'added value' in the UK/US collaborative higher education relationship

Arguably, UK/US collaboration within current parameters has hit a wall. Beyond simply striving for ever-greater numbers of students and faculty flowing between the two countries and for ever-greater numbers of collaborative research projects and publications, it is unclear what a deepening of the UK/US collaborative HE relationship would mean within the confines of the current framework. The ongoing vibrancy of the UK/US relationship in higher education will rest on developing new models that take the global environment into account and engage with it head on. There is a need to think radically – even mergers between UK and US institutions might be a goal.

An important part of the obstacle is, paradoxically, our long-standing universal recognition as the leaders in HE. As one observer puts it, 'Being on top for so long has its downsides'. As the UK and USA have each had their turn as the leading global power, and had their turn dominating the world economy, the world has learned a lot about us: post-colonial peoples worldwide have command of English, as well as of their own native languages (which most UK and US residents don't know at all); they've learned to negotiate not only their own worlds, economic and social, but ours as well. This has long been a sign of 'our' primacy – but soon it will be decidedly to our disadvantage. UK and US dominance has forced the rest of the world to develop the 'ability to move into other people's worlds'.[46] Now the UK and USA must develop that capacity themselves if they wish to maintain position.

Here, another factor comes into play. Precisely because of our histories, many of our efforts to build universities or learning capacity in the developing world are greeted with suspicion of merely being neo-colonial in intent or as designed to extract resources. UK/US ventures abroad, independent and collaborative, cannot be unaware of this. Rather than simply replicate miniaturised versions of ourselves in other places, we must work collaboratively with local institutions and governments to bring the best of what the UK and US systems have to offer, to be sure, but meld it to local and international circumstances. Future UK/US HE collaboration must not foster the anglophone and culturally Anglo-centred bubble that our primacy first created, then fostered. Instead, it must turn outwards, and develop models of HE collaboration that are truly suited to the globe.

46
Fareed Zakaria, 'The Future of American Power: How America Can Survive the Rise of the Rest', *Foreign Affairs*, May/June 2008.

6 The world ahead

Though universities often dress themselves in the trappings of tradition, they are among the few cultural institutions whose responsibility is unalloyedly to the future. First, they educate the leaders of the future from all over the world, the best and brightest of every generation. Second, they impart to those students values which can make the future a better place to be by combining respect for others' points of view with an ability to challenge even the most entrenched mindset. Third, they produce genuinely new knowledge – knowledge not only designed to stimulation innovation but also calculated to produce the true invention that comes from asking questions to which the answer is genuinely unknown. Fourth, they are all but uniquely placed to think about the grand problems that will bedevil the world: climate change, food and energy security, pandemics, terrorism, and so on. In other words, universities both overhang the future and provide a means to make it better than it otherwise would be. They are the new global lighthouses, a gift to the future from the present.

6.1 The students of the future

The pollster Zogby reports that the students of the future will be 'globalised' in ways we can only imagine today. In a major study of American youth, Zogby finds that members of the 18–29-year-old group 'are open with one another to an astounding degree and take their cues globally, not just locally'. Zogby terms this group the 'First Globals' – a group, he argues, shaped by the 'borderless world of the internet', who view the world's borders, too, as increasingly meaningless and arbitrary. 'More than any other age group, this one has been exposed to the world, not just to family and friends.'[47] The impact of the internet is difficult to overestimate. But at the same time the world – and particularly the developing world – remains plagued by national conflicts, and is carved up by very real borders. The experience of the world as 'borderless' is largely that of elites.

Those in the business of higher education would do well to take note of both sides of this coin. HE establishments that not only acknowledge, but foster, the border-erasing mentality of the 'First Globals' are the ones that will make the biggest contribution and be the surest to thrive. But at the same time, they must not be blind to the realities presented by resolutely national structures. Universities and colleges have a profound responsibility to ensure that they supply young citizens from around the world with the deep understanding, and the intellectual tools, which they will need to become wise leaders of commerce, industry, and politics in a world that is at once conceptually borderless and yet in some ways more fraught than ever by national conflicts. Without that capacity, there is a danger that this sense of being a citizen of the planet could engender a sense of lacking personal roots or values, or to an elitist blindness to the lived realities of much of the world.

47 John Zogby, *The Way We'll Be: The Zogby report on the transformation of the American Dream* (Random House New York, 2008), pp 91–119.

Planning long-range strategies for UK/US collaboration in HE should have as its purpose more than simply accommodating and fostering the 'First Global' nature of its own constituencies. More important still, it seems to this group, will be UK/US collaborations in the broader world that help cultivate thoughtful and insightful 'First Globals' across its map. As William C Kirby puts it, 'How do we ensure that – even though… universities will still be based in a home country, with national responsibilities – [they] also fulfil our international responsibilities, training students who will be citizens of the world?'[48] The traditions of critical thinking, academic freedom, and intellectual breadth that provide the bedrock of commonality between the UK and US HE education systems have been important in nurturing the growth of a freer-thinking generation. Collaborations that foster this emergent 'First Global' demographic not just at home but abroad could represent a vital element in fostering healthy civil societies around the world.

6.2 The map of the future: global 'idea capitals'

Universities have long been pivotal in creating what might be termed idea 'capitals' or 'zones' – locales that have universities as critical drivers in building their importance. Since the Middle Ages, universities have played a pivotal role in enhancing the life of cities and in making them important in national and international contexts. As one historian of cities puts it, 'There is a direct line that runs from the universities of Leiden, Geneva and Edinburgh to the founding of London University and New York University. The founders of these self-consciously metropolitan 19th-century universities looked back to the civic practice and the curriculum of the early modern civic universities.'[49] The relationship between the USA and the UK is itself evidence of this: the inspirational if not actual origins of most US elite HE institutions are in the UK (King's College, for example – now Columbia University; or Harvard – first founded by the Colonial Legislature of Massachusetts).

As countries around the world move to enhance their HE sectors, they are looking to the great educational centres of the UK and the USA as models of the symbiotic relationship between the vitality of a given region and its institutions of higher education. No longer is the impact confined to a city in a narrow sense; transport connections, interconnections between organisations and personal networks serve to extend the impact of vibrant universities to the major regions and the states in which they are embedded. Indeed considerations of energy use, population concentration and the quality of life all demand that idea capitals *not* be over-concentrated in a few urban population centres.

A number of emergent countries actively want to be the idea capitals of tomorrow. China, India, Qatar, Saudi Arabia and the United Arab Emirates (UAE) are pouring huge resources into the creation and growth of universities and other cultural institutions. The huge wealth of the latter and the massive populations of the former make these developments well worth watching. In China, the current 'revolution in mass higher education… dwarfs that of the United States in the 1950s and that of Europe in the 1970s'.[50]

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William C Kirby, 'On Chinese, European, and American universities', *Daedalus*, 137.7 (Summer 2008), p139.

49
Thomas Bender, introduction to Thomas Bender, ed, *The University and the City: From Medieval Origins to the Present*, Oxford University Press, 1988.

50
William C Kirby, 'On Chinese, European, and American universities', *Daedalus*, 137.7 (Summer 2008), p139. And older markets, notably Europe, are themselves working to restructure and revitalise HE – eg the Bologna Process.

UK/US collaborative ventures have a unique opportunity actively to participate in the development of new intellectual clusters around the world. To be sure, the huge resources such places as Saudi Arabia and the UAE are investing in their new universities represent a competitive challenge for the UK and USA alike. But the real challenge in this situation, and opportunity, is for universities in the UK and USA to work with such countries as they develop their HE sector. If we turn away – by dismissing these new institutions as parvenus, or by failing to have the cultural openness that collaboration with them might require, or simply by failing to pay attention to what is going on elsewhere in the world – we make a huge mistake.

If first industry and then finance were the economic drivers of the last century, it seems safe to guess that ideas will drive this one. At the dawning cognitive century, HE will be as competitive and global a sector as manufacturing was in the last. By engaging with nations around the world that seek to develop institutions of higher education, the universities of the UK and USA can infuse new vigour and relevance into the UK/US partnership and spread its bedrock principles to new contexts. To the question, 'How can cities thrive in the changing economy?' a recent report gave as the number one answer, 'by working with universities'.[51] A number of emergent countries have launched a strategy to make their cities important by making them home to major new HE initiatives. In the coming cognitive century, UK/US collaboration can be leveraged to help determine what the world's most important cities will be – and what principles will guide their universities, and, by influence, the cities themselves. The UK and the USA, each and in tandem, are well positioned to influence the emergence of future 'idea capitals' around the world – and if they do not, they likely will fall prey to the competition that these new centres of thought will present.

6.3 Universities now drive the research economy

Increasingly, universities are relied upon for a huge range of research activities that used to be shared or shouldered by the private sector. 'Blue sky' research – research undertaken for knowledge's sake, to probe theoretical boundaries but without immediate applied value – is the driver of innovation. Universities, and a handful of government laboratories, are now the only sites at which such fundamental research is conducted. Bell Labs' recent (August 2008) decision to pull out of basic science, material physics and semiconductor research 'to focus on more immediately marketable areas' is but the most recent example.[52] The problem with this approach, of course, is that while we may know what *today's* 'marketable areas' are, we don't know those of *tomorrow* – and only open-ended research leads there. Now the locus of innovative research is, and will increasingly be, the university.

51
Work Foundation, *How can cities thrive in the changing economy?*, Ideopolis II Final Report, July 2008.

52
Over its history, Bell Labs has generated six Nobel Prize winners, but was 'one of the last bastions of basic research within the corporate world'. See Priya Ganapati, 'Bell Labs Kills Fundamental Physics Research', *Wired*, 27 August 2008, http://blog.wired.com/gadgets/2008/08/bell-labs-kills.html

A huge responsibility, one that is largely unrecognised by the general public, is placed on universities to produce research without guaranteed or predictable sources of funding. Some universities are trying to solve this problem by partnering with industry; here, too, it is newer institutions that are having an easier time with new models. But even in the most successful examples, applied rather than fundamental research dominates. Dublin City University, for example, founded 30 only years ago, has companies such as Intel and Samsung running research labs on campus.[53] In the UK, 90% of universities 'have a dedicated enquiry point for business, and over a third of universities cite SME [small and medium enterprises] as one of their top priorities in terms of economic development.'[54] Such partnerships give companies the benefits of adjacency to universities, but are not meeting the need for fundamental, 'blue sky' research. However such relationships are negotiated, it is clear that in the emerging world, university research will be more important than ever for the overall economic future of the societies of which they are a part.

Universities are now as never before the magnets for business and for economic clusters. Historians of HE note that until the last quarter of the 20th century, universities were not major players in national economies. But starting in the 1980s, 'schools like Stanford and MIT became epicentres of the emerging knowledge economy… fostering spin-offs and start-ups, and bolstering research budgets by partnering with industry.'[55] A similar interplay between universities and industry took place in the UK at about the same time. Today, 'universities and colleges are vital to the economic, social, and cultural well-being of their localities – in particular their very existence can be central to local prosperity because of their ability to function as cultural hubs and innovation incubators.'[56] The same model is now coming into play in Latin America, among other places. Brazil's State University of Campinas (UNICAMP), Mexico's Tec de Monterrey, and Costa Rica's Technological Institute are but a few examples of Latin American universities that are the centre of developing clusters of companies in industries related to these universities' academic foci.[57] Such partnerships have value, but should not lead us to forget that it is still the fundamental research agenda – driven by the pursuit of knowledge rather than particular marketable applications – that must remain central.

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Stefan Theil, 'The Campus of the Future', *Newsweek* online edition, 9 August 2008.

54
Universities UK, *Spending Review 2007: Securing the future*, February 2007. Noteworthy in this context, among other examples, is the link between the University of Hertfordshire and San Jose State University.

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Stefan Theil, 'The Campus of the Future', *Newsweek* online edition, 9 August 2008.

56
Universities UK, *Spending Review 2007: Securing the future*, February 2007.

57
'Globalization and the University,' speech given by Richard C Levin (President, Yale University) at the Poder Conference, Washington, DC, 8 November 2006.

6.4 Universities are a key hydraulic for economic and social health

UK and US universities and colleges play a critical role as engines of social and economic mobility. Through the judicious use of state support, financial aid and scholarship funds that are awarded on the basis of need rather than merit, universities have the unique ability to reduce the growing gap between the haves and the have-nots, between the well-educated and the poorly-educated, between the reasonably secure and the perpetually insecure. In fact it is difficult to identify any other institution in our society that can exert the leverage needed to level the unequal playing field that is created by the accident of birth. Not only is equality before the law inextricably linked with equal access to the advantages of education, but the current stratification of our society along educational lines (especially if educational lines track wealth) has the potential to do irreparable harm to our democracies. This is especially true in light of the increasing sophistication of society, the dwindling number of positions that require no more than a high school diploma, and the widening disparity between the rewards that accrue to high school and college graduates.

The connection between HE and economic success has been depicted too often in unilinear and oversimplified terms. An array of studies show investment in a university degree almost always pays off.[58] But this is only the most basic metric for placing a value on HE. Much more important, if much more difficult to quantify, are the downstream economic benefits of HE – in the creation of stable and productive societies through a host of mechanisms. In the UK, studies show that on average 50% of university graduates stay on to work in the region where their university is based.[59] These graduates tend to work in higher-paying sectors, and bring up the overall quality of life of university regions long after graduation. No less important is the role universities play in the generation of intellectual capital. The powerful connection between the intellectual capital of universities and future national economic successes explains why a number of forward-thinking 'emergent' nations are focusing their efforts to achieve primacy on the establishment of healthy cultural and educational institutions.

To all of this can be added the fact that university graduates, as one report has shown, enjoy better mental and physical health, and a higher sense of well-being, and are more racially tolerant, politically active, and involved in their communities and their children's educations.[60] In a host of ways, HE has a huge positive impact on the social and cultural as well as economic environment. Gradually, this is coming into focus in the developing world – where universities have long been regarded as important simply for professional advancement purposes. As countries around the world apprehend the important social and economic value that universities can lend to broader society, the UK/US HE model has the opportunity to lead future global HE development.

58 For a summary of findings in the US context see Kathleen Porter, 'The Value of a College Degree', ERIC Clearinghouse (ERIC Clearinghouse on Higher Education, Washington, DC, 2002), at www.ericdigests.org/2003-3/value.htm

59 Universities UK, *Spending Review 2007: Securing the future*, February 2007.

60 Universities UK, *Spending Review 2007: Securing the future*, February 2007.

6.5 The 'utilitarian' justification for the breadth of the UK and US curricula

Universities now sustain the cultural hearts of numerous communities. Universities are the epicentre for cultural life for many cities – and this, in turn, has economic dimensions. As one recent study summarises: 'Universities play a key role in the cultural life of cities and regions by providing cultural facilities and activities for the wider public, including libraries, museums, galleries, film showings, theatres, concert halls and botanic gardens. They also host talks, literature festivals, concerts, exhibitions and attract well-known artists… Universities are helping to create cultural hubs around which professionals and entrepreneurs gather. If these cultural effects are added to the direct activities of universities in stimulating innovation and delivering lifelong learning then it can be seen that all universities are at the core of the "innovation ecosystems" which are essential in a healthy economy.'[61]

Around the world, the liberal arts and science education and fine arts programmes are emerging within higher education environments that have long undervalued them. In China, for example, the emphasis has long been on engineering and the sciences. But 'China's educational leaders increasingly share… the view that a study of the humanities is essential… Even under the leadership of engineers… institutions have come to understand that an education without the humanities is incomplete.'[62] Increasingly, we can expect leaders around the world to seize on the culturally enhancing effect of higher education – and here UK and US universities in turn should grasp a major opportunity to take a leadership role in the global higher education scene.[63]

6.6 The world ahead may not look as we expected

Much of the West assumed that globalisation, which would draw the rest of the world more tightly into the market system, would promote the growth of a middle class in countries where there had been none and lead inexorably to demands for democratisation and greater individual rights.[64] But regimes in Russia, China, and the Middle East have demonstrated their capacity to adapt to a market system while maintaining centralised political control. This alternative mode of development represents a view of modernisation in competition with the one taken for granted in the West. And leaders in such countries are by no means unaware of this. Russia's Foreign Minister, Sergei Lavrov, recently commented that 'for the first time in many years, a real competitive environment has emerged in the market of ideas' between different "value systems and development models". From the Russian perspective, for one, the good news in this scenario is that 'the West is losing its monopoly on the "globalisation" process'.

Progress toward a global civil society, grounded in notions of liberty and democracy, requires more than rhetoric about the virtues of free institutions. By illustrating the essentiality of free inquiry in the pursuit of knowledge and development – which in the cognitive century will be a critical feature of this world society – the development of universities built, our group would urge, in collaboration with UK and US universities, on the core values that undergird the UK and US university systems will plant firmly the ideals of liberty and democracy.

61 Universities UK, *Spending Review 2007: Securing the future*, February 2007.

62 William C Kirby, 'On Chinese, European, and American universities', *Daedalus*, 137.7 (Summer 2008), p139.

63 China, for example, has asked a number of UK universities – notably Liverpool and Nottingham – to run joint-venture campuses in China focusing on media and the applied arts. See Duncan Hewitt, 'Opting for the Arts', *Newsweek*, 9 August 2008.

64 To some extent, this has been the basic thesis of a number of books, among them Thomas Friedman's *The World is Flat: A Brief History of the Twenty-First Century*.

6.7 Technology as a tool in collaborative efforts

An inevitable consequence of the increasing globalisation of HE will be the diminished importance of geographical boundaries and borders. Ordinarily, telecommunications technology does not need a passport, although state-controlled censorship of unfettered internet access remains an issue in some countries. Each year, video conferencing equipment – now often called 'telepresence' – becomes more sophisticated and more affordable. As we become more conscious of the environmental costs of international travel, video-linked university connections will grow ever more attractive. This suggests that new forms of university cooperation are within reach. On the micro level, it is easy to imagine a proliferation of team-taught courses that connect faculty between institutions, enriching the course experience for students and enhancing the possibilities for research collaboration. Offering courses from a main to a satellite campus – and vice versa – is another obvious use of such technology. In its most sophisticated forms, telepresence equipment emulates the actual classroom experience, offering students virtual communities and virtual friendships that could be cemented with mid-semester travel between the teaching locations. Building on such initiatives, universities could begin to network in ways yet unexplored.[65] Global collaboration must take more advantage of such technologies than it now does. And we can do much to build useful networks by assisting those countries that do not have such technologies already in place in efforts to obtain them.

6.8 The UK/US partnership and its role in the world ahead

In the context of the world ahead, there are ample challenges but also opportunities to reinvigorate and reinvent the UK/US partnership, and to capitalise on its strengths to build global capacity for educating world citizens and conducting research that will ultimately address the world's pressing problems. Indeed, in many ways the rapidly emerging global HE context makes the UK and USA more vital than ever – if UK and US universities, with the support of their governments, are willing and able to rise to the challenge of engaging with that context and taking a collaborative leadership role in shaping it. Such a move will involve the nurturing, enhancing, and adapting of the 'special relationship' – and reclaiming it as a fundamentally cultural and civic, rather than military/strategic relationship. And it will require a dramatic reassertion in both countries that higher education, both at public and private universities, is a vital 'public good' worthy of substantial public (government) support.

65 The possibilities of mining the faculty talent to be found in non-research universities may be less obvious but potentially more transformative. Speaking only of liberal arts colleges in North America, there is a wealth of faculty expertise that goes untapped in the production of PhDs. Again, by harnessing telepresence, these faculty could become collaborators in mega-departments and in the highly networked institutions that will emerge as 'multiversities'.

There will doubtless be challenges ahead to the UK and US positions of preeminence in HE. But the UK and USA in tandem can move to shape the global network – to help build and support tomorrow's idea capitals and knowledge centres. The UK/US partnership must be solidified against the powerful forces of disinvestment, and then it must be enabled collaboratively to work in third locations and to foster joint research. As Richard Levin, President of Yale University, observes, 'few instruments of foreign policy are as effective in promoting a stable and peaceful world as welcoming international students to one's universities.'[66] UK and US universities can engage the emerging idea centres of other countries in their own contexts – in partnership with their universities, by establishing branch campuses in welcoming countries overseas, and through programmes that foster the flow of students between the UK, the USA, and an array of other nations. It is the view of this group that a combination of UK and US universities in this joint effort will be a formidable one.

66
'Globalization and the University', speech given by Richard C Levin (President, Yale University) at the Poder Conference, Washington, DC, 8 November 2006.

7 Proposals for action: building a global civil society

In this section the group offers a multidimensional proposal to strengthen the UK/US higher education relationship and build upon it in service of fostering a global civil discourse and society. At the outset we restate our view that hard times make international collaborations in higher education more, rather than less, important. We must avoid a retrenchment of ideas and contacts, just as our economies must avoid isolation as they react to recession.

The group's proposal rests on the premise that an important new trajectory of UK/US collaboration is engagement with universities in third countries and the creation of networks encompassing countries and universities. It also rests on the view that among the most potent of economic stimulus ideas – the quickest, broadest, most beneficial and long-lasting – would be a serious investment in HE. In the wake of World War II, the GI Bill enacted in the USA was intended as a short-term solution to potential mass unemployment (as millions of soldiers returned to their homes), yet has proven to be one of the longest-lasting and most important pieces of US domestic policy enacted (creating a whole generation of educated graduates whose social and economic contributions have carried the country for decades).

Yet ultimately a serious investment in HE is critical less as a response to the current crisis than as insurance against future crises. Most fundamentally, at the root of our deliberations has been the conviction that HE is, by far and away, the social force and sector best equipped to shape societies world wide, to address the most pressing of global problems, and to act as a stabilising force over time.

Higher education is a key public good. Indeed, in the knowledge century, it promises to be *the principal* public good. Yet the expectations that our societies seem to have of HE – to undertake key research, solve social ills, and educate young people, all while remaining as low cost as possible – seem to exceed its current capacity, even without accounting for the impact of the present economic downturn. At very least, HE is at a tipping point, which demands further long-term investment in HE if universities and colleges are to fulfil their potential both at home and abroad. As the quintessential forward-looking investment, HE must be forcefully and deliberately positioned at the very centre of efforts to stabilise nations and to create over the long term a healthy and prosperous global society.

We therefore propose the creation of an ambitious and substantial trust to support students, research, and global service, resting on a foundation of UK/US collaboration, and reaching out to the world.

7.1 The Atlantic Trust

Specifically, the group recommends the creation of an 'Atlantic Trust' that will invest in global civil society through multilateral international collaborations built on the foundation of the UK/US partnership. The trust as we envision it has three principal goals and three corresponding constituencies: the long-term incubation of global civil society (through the cultivation of talented students, at home and worldwide); the leveraging of collective research strength to address the big, multidisciplinary problems with which the world is faced (through teams of researchers engaged collaboratively and with an international frame); and global service (through faculty, staff, and students who commit to internships and other forms of service worldwide).

7.2 Students – the Atlantic Scholars: creating a cohort of global citizens

First, UK and US institutions must continue to work with great vigour and commitment to ensure that all our capable young citizens have the full opportunity to develop their talents, whatever their background or financial circumstances. We believe that our world will only prosper if the next generation is led and supported by the most talented individuals whom we can identify and nurture. This entails a recognition (in large part by government) that the public has an interest in seeing talented students worldwide develop their talents through the most rigorous and advanced higher education they can manage.

Second, development of human capital around the world is central to future peace and prosperity. UK and US universities could do significant good by offering very talented young people from third countries the opportunity to study at UK and US institutions. This would benefit these students, to be sure, by giving them access to quality HE of a sort that is unavailable in many places. But at the same time it would immensely enrich the quality of UK and US universities by fostering what this group has termed 'diversity at home'. In the long term, it would benefit all by contributing to a cohort of global citizens shaped by the principles on which the UK and US HE systems rest.

We have evidence from within our own systems that many students, despite their intellectual capacities and notwithstanding their familiarity with the borderless world of the internet, are still too insular in their understanding of the ways in which the world is changing, and that they do not appreciate how these changes will shape their own future lives. It is vital that more of them experience direct and meaningful connectedness with circumstances very different from their own, elsewhere in the world. Equally it is vital that more young people in the developing world have opportunities to connect with different environments.

We therefore recommend the creation of a prestigious Atlantic Scholarship programme both to target students from third countries for study at a UK *and* a US university and to promote the flow of UK and US students across the Atlantic. While at home we educate growing numbers, many capable students are deterred by financial and social obstacles. And while our numbers of international students continue to swell, the current range of international talent that we educate is constrained by prior knowledge of educational opportunities in the UK and the USA, by ability to pay and by the capacity of governments in poorer countries to fund such opportunities. International scholarship recipients would obtain funding for four years to spend three years at a US university/college and one year at the UK university/college (or vice versa, that is, three years at a UK institution and one year at a US institution). Intensive language training in English would be a core component of the programme. Domestic grant recipients would receive funding for a course of study in the UK or USA, with a commitment made on the part of recipients to spend significant time in at least one other country – either one year in an international study capacity, or shorter extracurricular periods of time, through the Atlantic Partners programme (see below, 7.4).

Nomination and application processes for the Atlantic Scholars programme could be channeled through UK and US embassies with a joint selection committee of prominent academics from both countries making the final selection. We envisage an annual conference (held alternate years in Washington and London) to bring the full cohort of Atlantic Scholars together for high-level, well-publicised briefing sessions with government officials and corporate/non-profit leaders.

We envision this as a programme that will be large in scope and prestigious in name. We would hope that at maximum capacity, the programme will support up to 12,000 students per year, half from third countries, and a quarter apiece from the UK and the USA. In such number, a large cohort worldwide would develop, and impact and ripple effects would be rapidly evident.

7.3 The Atlantic Researchers

A vital component of the life of universities, and of their contribution to society at large, lies in their ability to mount complex research. As this document has outlined, it is now universities that bear the burden of virtually all fundamental, 'blue sky' research. It is universities that are turned to for insight into the most troubling problems of our times. While national funding entities provide support to domestic researchers, there is a desperate need for a multilateral entity that will provide a significant stimulus for international research partnerships.

As a number of research networks have shown – WUN, IARU, and AC21, among others – exponential benefits can come from international collaboration in research. On a basic level, such collaborations – especially for projects involving expensive equipment – are cost effective. But on a much more important plane, they are intellectually synergistic. Multidisciplinary and multinational teams working together can attain unparalleled scope and produce comprehensive output of a sort generally unattainable by institutions, disciplines, and even nations working alone.

Thus the second feature of the Atlantic Trust is directed towards substantial support for research, through international, multidisciplinary teams. It is expected that all teams would involve at least one UK and one US institution, and at least one from a third country. It is also expected that the research supported through the Atlantic Trust's Atlantic Researchers programme would involve researchers from more than one discipline working together.

The group emphasises that the aim of supporting the development of global civil society requires that a wide range of disciplines be supported through this scheme. Understanding cultural movements and supporting cultural change is as important as developing technological solutions to pressing practical problems. The humanities, the social sciences, and the sciences should be supported in equal proportion through the scheme, with particular attention given by the selection committee to projects including researchers from across the disciplinary spectrum. The work they are engaged in need not be interdisciplinary, but must bring the perspectives and expertise of many disciplines to bear on their subjects of research.

Selection of research teams would be made by a transatlantic body of scholars, and would involve extensive peer review. Dissemination of research results would be publicly available and posted on the web sites of all participating institutions with the Atlantic Trust prominently featured as the funding source.

Alongside research projects, other funded activities of the Atlantic Researchers programme would include workshops and conferences to stimulate exchanges and ideas on shared global problems.

7.4 The Atlantic Partners: stimulating a matrix of university cooperation

Finally, the third component of the Atlantic Trust would work to enable the HE community on both sides of the Atlantic to impart their knowledge and experience in a global environment, and to stimulate members of all its constituencies – faculty and academic staff, administrative staff, researchers, and students – to participate in a wide-reaching service programme working with third countries.

Not every undergraduate in the UK or the USA wants to undertake a full year of study or work abroad, but there is considerable unrealised demand for shorter periods of international experience. In the Atlantic Partners scheme, students from the UK and the USA would be encouraged to spend a semester or a summer working with an NGO, or in other community service, in a developing country. Travel costs and funding of these internships would be supported by the Trust, with some supplemental assistance possibly offered by participating universities and colleges. Initial, week-long training sessions for the student participants from both countries would rotate among cooperating UK and US colleges and universities, alternating between campuses in each country. Coordination of the programme and vetting of the participating NGOs would be accomplished by a joint UK/US commission.

Undergraduate participation would be linked to the opportunity for longer, postgraduate engagement with the same NGO or community service programme. A competitive application process would offer select students who had spent an initial semester or summer in such a placement the opportunity to return for a dedicated, two-year position. In addition to the skills and knowledge acquired by these postgraduates in this much longer period of service, they would develop a country-specific expertise that would significantly enhance their value as global citizens. Participants in this postgraduate public service programme would also serve as resource leaders for the week-long training session described above.

The Atlantic Partners programme would work at the level of faculty/academic staff and administrative staff, as well, with particular focus here on new PhDs and senior university administrators – that is, those on the cusps of their university careers, be it at the start or nearer the end. The new PhDs would serve in a way similar to the 'Teach First' programme in the UK in which new graduates are sponsored by companies to teach in inner-city schools for a year, with the option of taking up fast stream employment in the company afterwards or the 'Teach America' programme in the USA, which is supported by philanthropy. There is scope for UK and US universities to act as employer sponsors for new PhDs to experience outward mobility – and teach or do other public service in developing countries for a year before taking up assistant professorships/lectureships.

Faculty and senior administrators, especially those nearing retirement, could be offered inducements – early retirement, pension benefits, and the like – to deploy to third countries for a year or more at the end of their careers. There is a demand in developing countries for skilled university administrators as well as for faculty of all levels.

Thus the Atlantic Partners programme would encompass all parts of the university community, and enable UK and US universities to make direct contributions themselves to the programmes supported by the Atlantic Trust fund via sharing of local knowledge and human resources, in an ethos of service and personal development.

7.5 Funding and structure

We believe the trust should be resourced from four separate revenue streams: government, the private sector, foundations and philanthropists, and universities themselves. The primary source, however, must be government: the core rationale behind this proposal is, again, to constitute a public acknowledgement and assertion that HE lies at the very heart of the long-term health and stability of our societies.

Significant government funding will be required to initiate and sustain the Atlantic Trust, with the UK, the USA and, possibly and at a later date, third countries contributing to the fund. Despite the ambitious nature of the programme, we caution that it would be a mistake to divert existing resources from existing HE programmes. We see the trust as a new funding mechanism for a new way of thinking about the nature of UK/US HE relations in a global world. As a result, we would not wish to see the trust established with existing monies, which would run the risk of cuts to extremely important programmes elsewhere in the UK/US partnership. The trust would not supplant current bilateral funding mechanisms (indeed, we feel those need to be secured, supported and expanded) but as a multilateral mechanism would be wholly new and distinct.

Despite the global economic crisis, we believe the private sector has a strong role to play, and that many transnational companies will see benefits in doing so. The public relations benefit from investing in the Atlantic Trust would be enormous. To encourage them, we propose that private sector companies should be offered tax credits for contributing to the fund. Foundations and philanthropists also could be approached. Finally, universities themselves, on both sides of the Atlantic, have a major role to play, by providing access to human capital and campus facilities.

The Atlantic Trust will need a board, free from government interference, to manage it, based on the set of normative principles and shared characteristics detailed in this report. We recommend that a group of academics be named to write the Trust's charter and give a detailed assessment of budgetary needs. We envisage the establishment of the University Leaders' Council, a body of 10 UK and US university or college vice-chancellors and presidents, which would meet annually to set thematic parameters for the Atlantic Trust. The members of this group would rotate on a staggered basis.

8 Conclusion

The three components of the group's proposal – student support, funding for research, and a stimulus to global public service – are intended to reach far into the future, reclaiming higher education as the force *par excellence* to shape not just the present but the decades ahead, lifting up generations to come and building prosperous future societies. We envision that the trust would make connections between universities (and, through them, countries) on a scale much larger than hitherto, though complementary to existing bilateral academic programmes, adding value to the stimulus which each provides for economic and cultural development within its own region.

Joint funding for students, research, and service by the UK and US governments would create a significant new source force targeted at multiple levels at those most pressing global problems that require research at the frontiers of the sciences and social sciences: endemic poverty, food and water shortages, environmental contamination, global terrorism and rogue states, pandemics and persistent diseases. It would also mark an important leveraging of the strong foundation of UK/US collaboration in HE, one well suited to the fluid and rapidly changing global landscape.

In closing, this group again asserts its view that HE represents, above all, an investment in the future of humanity: in our ability to solve the greatest problems that confront the globe, our ability to create a civil society that spans the world, and our ability to connect to and work within the world unfolding before us.

Today, more than ever, we are concerned with our global infrastructures – from travel networks to climate change. But any vision of what our most basic infrastructures encompass must include HE. Higher education is not a commodity that one purchases, only to see it depreciate over time. Rather, it is an investment in the future, indeed perhaps the *only* investment that can produce better lives and stir the world to action. And perhaps the only one that comes with a virtual guarantee of returns to come.

UK/US Study Group members

UK

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Shaun Curtis
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Christopher Snowden
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US

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President, American Council on Education, is the former president of the University of North Carolina and was educated at Syracuse University and the Ohio State University.

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Courtesy of Helen Thorne Research Councils UK USA Office

67 Institute of International Education, *Atlas of Student Mobility*.

68 The Future Size and Shape of the HE Sector in the UK, second phase.

69 Universities UK, *Talent Wars: the International Market for Academic Staff*, 2007.

1 Undergraduate education

Employers, universities and policy makers in the UK and USA emphasise the value and desirability of exposing students to the international environment as part of their study programme. The UK is the number one choice for US students studying abroad and the USA is the top destination for UK students. There has been steady growth in the total number of US students coming to the UK over the last five years to around 22,000 each academic year. Numbers of UK students visiting the USA has increased slightly to around 8,500 per year.[67] Estimating the potential growth in demand for overseas study is being explored by Universities UK.[68]

The majority of US and UK universities offer study abroad options including the whole or part of a bachelors degree, summer schools, short-term visits, fieldwork or other exchange opportunities. A small but increasing number of universities is developing joint or dual degree programmes or collaborating on the development of course curricula. Undergraduate study abroad programmes are usually facilitated by agreements between individual universities reflecting common or complimentary missions (eg Cambridge/MIT undergraduate exchange, Swansea University humanities exchange programme with several US universities). Others have been developed through international university consortia (eg the Worldwide Universities Network, AC21) or through the EU/US Atlantis programme which supports the development of joint degrees between EU Member State universities and US universities (eg UWE and University of Chicago joint degree on urban regeneration). The European Commission and the US Department of Education will shortly publish a report on transatlantic joint degree programmes and opportunities for expansion.

Distance learning provision is expanding in the USA, partly to increase participation of non-traditional groups in HE, and is increasingly being offered students outside of the USA through the internet and satellite television. Over 90% of US colleges and universities with sizeable student populations offer distance learning programmes. In addition, universities in the USA and UK are starting to make undergraduate lectures from leading institutions available to all via the internet.

2 Postgraduate study

Figures show increasing numbers of non-EU postgraduate students in UK universities, with 32,000 full time postgraduates in 2005–06, of whom 5,595 (18%) were from the USA or Canada.[69] US data show that around 500 UK students gain doctorates in science subjects from US universities each year.

As with undergraduate provision, many US and UK universities offer a variety of exchange activities and collaborative masters degree and doctoral programmes, which are facilitated by university to university agreements (eg LSE joint Masters of Public Administration Degree with Columbia University and universities in France, Germany and Singapore). The EU Erasmus Mundus initiative provides funding to develop joint masters qualifications open to students from non-EU countries (eg the Space Science Masters supported by Cranfield University and universities in France, Finland, the Czech Republic, Germany and Sweden). A survey of more than 500 US universities, undertaken by the Council for Graduate Schools found that of those who replied, 29% of US universities have at least one joint or dual postgraduate degree programme with an overseas university and 24% were planning new joint/dual degrees. The majority of existing provision is for masters degrees (mostly MBAs) involving US and EU universities.

Numerous scholarships exist to promote international postgraduate study eg UK/US Marshall Scholarships, the UK/US Fulbright Commission, UK Chevening scholarships, Gates-Cambridge Scholarships, Research Council activities such as the AHRC/ESRC programme with the Library of Congress, the National Science Foundation's (NSF) International Research Experience for Students initiative, and the National Institute of Health's (NIH) programme with Oxford and Cambridge. Growth in distance and e-learning is largely confined to taught masters courses and professional qualifications in IT, finance and management. Further expansion is anticipated particularly by US for-profit providers.[70]

3 Academic mobility

Spending a period of time abroad during an academic career is seen as desirable in terms of learning new skills, gaining experience, and fostering future partnerships. The proportion of non-UK academics in UK universities is growing rapidly, with around 10% coming from the USA. US studies show a similar pattern, with large increases in non-US nationals in the academic workforce. Studies have shown that UK researchers typically spend time at overseas universities early in their careers and for relatively short periods. There is significant mobility between the UK and USA, particularly amongst highly-cited researchers. Analysis reveals that many UK researchers maintain their links with US universities on returning to the UK, developing new collaborations.[71]

70
Universities UK, *Private Universities & Public Funding*, 2008.

71
Universities UK, *Talent Wars: the International Market for Academic Staff*, 2007.

Funding for short-term visits between universities is available from many sources including universities, learned societies, charitable bodies and public funders, eg Research Council visiting fellowships. At university-level, arrangements for visiting professorships are common, and occasionally joint chairs or appointments may be made eg joint professorship between Harvard and Manchester in the area of social change. Longer-term visits and exchanges are often supported through many kinds of fellowships. For example the research councils fund UK-based fellowships open to researchers of all nationalities; the British Council offers a researcher exchange programme; and the new Newton International Fellowships scheme funded by the Royal Society, British Academy and Royal Academy supports incoming early career stage researchers. US funders such as the NSF and NIH invest in international fellowships for US academics. Other support includes the UK/US Fulbright scholarships and UK/US Marshall-Sherfield Fellowships. Some international programmes also specifically support researcher mobility, such as the Human Frontier Science Program (funded by BBSRC and MRC, NSF and NIH), which funds fellowships and career development awards, with mobility components between the UK and USA. EU funding to strengthen the European Research Area targets EU nationals working in the USA, through European Research Council grants, International Reintegration grants and researcher exchange schemes, as well as both inward and outward research fellowships.

4 Research collaboration

International research collaboration is increasing generally as countries seek to share the costs of research, tackle global challenges and access expertise and cutting edge facilities. The majority of universities in the USA and UK share a commitment to expand their level of international research collaboration – this is often multilateral rather than bilateral. Studies of UK/US research collaboration[72] and bibliometric analysis[73] demonstrate the UK's strong research performance and impact (second to the USA and first in terms of productivity amongst G8 nations). The USA is a clear partner of choice for UK researchers (around 31% of all UK researcher papers with an international co-author are with a US researcher) and numbers of collaborations are continuing to grow year on year. Conversely, the UK is currently the second partner of choice for US researchers, just behind Germany.[74] The UK is the leading partner for US universities winning collaborative funding from NIH and NSF.

Many research collaborations are developed informally between US and UK academics. In the UK seed funding to develop new collaborations is provided by the Science and Innovation Network, Research Councils, learned societies and charities. Collaborative research is funded and facilitated through many means including: university consortia (eg the International Alliance of Research Universities); through strategic partnerships between universities with complementary strengths (eg the University of Glasgow and University of Columbia on medicine); joint funding between UK and US funding agencies in priority areas (eg NSF and EPSRC joint initiatives on materials and chemistry, NSF and NERC on climate change, NIH and ESRC on infectious diseases), specific bilateral support (eg DTI-sponsored UK/Texas collaborative, BSBRC US Partnering Awards) and multinational programmes such as International Polar Year, the International Stem Cell Forum and the Integrated Ocean Drilling Program.

72 Sir Gareth Roberts, *International Partnerships of Research Excellence: UK-USA Academic Collaboration*, 2006.

73 DIUS, *International Comparative Performance of the Research Base*, July 2008.

74 US Science and Engineering Indicators, 2008.

US/EU research collaboration is anticipated to increase following the strengthening of the European Research Area, changes to FP7 funding stimulate third party engagement, and new EU proposals for international S&T cooperation which will define and coordinate priority research and technology collaboration with specific non-EU countries. The European Commission and US funding agencies are increasingly working together with biotechnology, energy, IT and security are likely to be priority areas. UK participation in EU and other international programmes provides an effective platform to help UK and US universities collaborate with academics and agencies in other regions eg Asia.

5

University resources and facilities

US and UK universities collaborate extensively on research infrastructure projects and sharing data, equipment, cells lines, collections and technology. Many partnerships are informal reflecting long-standing relationships between academics, departments and institutions, and between UK and US research funding agencies.

Large research infrastructure projects involving UK and US universities often involve multiple international partners and include such projects as telescopes and satellites (eg the James Webb Spaces Telescope, the successor to Hubble), particle physics (eg the Large Hadron Collider), fusion, oceanography, polar sciences, and other environmental research. Smaller-scale projects are arranged on a bilateral basis, eg the National Science Foundation/Joint Information Systems Committee International Digital Libraries Initiative to improve digital access to research collections, or agreements between the British Academy and US research libraries.

Given the trend in large research infrastructure towards single international facilities and the new opportunities arising from high-performance computing, GRID technology and advances in data manipulation and visualisation, substantial opportunities exist for the USA and UK to work together to lead and drive forward new projects.

6

Innovation

UK/US university collaboration on innovation often flows from research collaboration and typically reflects individual university strengths, industry partnerships and IP policies. Collaboration on innovation is less extensive than on learning or research reflecting IP and pre-commercial issues.

Innovation collaborations are typically business driven, with major investors such as Rolls Royce, HP and Microsoft managing their R&D requirements between universities on global basis. University to university driven partnerships include the AtlanTICC Alliance between Imperial College, Georgia Tech and DOE's Oak Ridge National Laboratory, which focuses on developing and exploiting research where the institutions have complementary expertise, particularly in bioenergy and energy technologies. This and other partnerships are supported in part by the UK Science Bridges scheme which funds UK researchers with strong US collaborations to accelerate the exploitation of research outputs eg collaboration between the universities of Southampton, Bristol, Bath and Surrey, with UC San Diego and UC Irvine to build links between high-technology R&D clusters in southern England and southern California.

7

University leadership and management

The leaders and staff of UK and US universities come together under the umbrella of a number of international bodies to share experiences and best practice. University consortia, such as the Worldwide Universities Network, provide a valuable platform for universities with similar aims and ambitions to learn from each other. Other bodies specialise in promoting researcher mobility (eg NAFSA: the Association of International Educators), innovation (eg Association of University Technology Managers) or information management (eg International Association of Technological University Libraries). There are also grants available which exchanges and visits between administrators from UK and US universities and elsewhere eg from the European Commission and Association of University Administrators. Increasingly the USA is looking to European organisations, such as the European Universities Association, as its first point of engagement on the HE agenda.

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