SJT 57(2): 182–202 (2004) Printed in the United Kingdom © 2004 Scottish Journal of Theology Ltd
DOI: 10.1017/S0036930604000109

Knowledge, meaning, and the world's great challenges*

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Abstract

The future of Cambridge University is discussed in the context of the current British and global situation of universities, the main focus being on what the core concerns of a major university should be at this time. After raising issues related to core intellectual values (truth-seeking, rationality in argument, balanced judgement, integrity, linguistic precision and critical questioning) and the sustaining of a long-term social and intellectual ecology, four main challenges are identified: uniting teaching and research fruitfully; interrelating fields of knowledge appropriately across a wide range of disciplines; contributing to society in ways that are responsible towards the long-term flourishing of our world; and sustaining and reinventing collegiality so that the university can be a place where intensive, disciplined conversations within and across generations can flourish. The latter leads into questions of polity, governance and management. Finally, the inseparability of teaching, research and knowledge from questions of meaning, value, ethics, collegiality and transgenerational responsibility leads to proposing 'wisdom' as an integrating concept. The relevant sources of wisdom available are both religious and secular, and in a world that is complexly both religious and secular we need universities that can be places where both are done justice. Given the seriousness and long-term nature of the conflicts associated with religious and secular forces in our world, it is especially desirable that universities in their education of future generations contribute to the healing of such divisions.

It is a great delight to be able to join with all of you here in honouring the Reverend Peter Gomes, the Plummer Professor of Christian Morals and Pusey Minister of the Memorial Church at Harvard, and in celebrating the foundational and continuing relationship between Emmanuel College and Harvard University. In his most recent book, *The Good Life: Truths that Last in Times of Need*, Peter Gomes recalls Harvard Commencement Day of June 2001 when the undergraduate speaker, having invoked 'a litany of Harvard greats: John Adams and John Quincy Adams, Theodore Roosevelt and Franklin Delano Roosevelt, W. E. B. Du Bois, Helen Keller, and John Fitzgerald

* The Gomes Lecture, Emmanuel College, Cambridge, Friday 14 February 2003.

https://doi.org/10.1017/S0036930604000109 Published online by Cambridge University Press

Kennedy . . . asked what they all had in common, and then answered his own question. "Dead", he said'.[1] It is rather startling to come to a Cambridge feast endowed in honour of someone who is not only not dead, but is actually present at the feast. And Peter Gomes has some presence! He is, said Robert Runcie, 'one of the great preachers of our generation'. He has a quality that comes from decades of faithfully seeking to represent a spiritual and moral wisdom that has been influential not only in numerous lives but also in the institutional life of a great university.

That undergraduate Commencement speaker, Peter says, went on: 'They are all dead. The University now belongs to us, as do the times. What will we do with them'?[2] This evening I want to ask that sort of question about this university. I am grateful to Professor Ffowcs Williams for inviting me to address it. Having heard the Lady Margaret's University Sermon for the Commemoration of Benefactors in November 2001 on the future of this university,[3] he suggested that it might be appropriate to take that topic further this evening. So that is what I am attempting, deeply conscious of how impossible a topic it has proved to be. I am also extremely grateful to the many people, some of them present this evening, who have been willing to engage in conversations, in some cases lengthy and repeated, about Cambridge University's future.[4]

1. Why this topic now?

It does seem a suitable time to approach this topic. There are good reasons to do so that are specific to Cambridge at this time, ranging through current

[1] Peter J. Gomes, *The Good Life: Truths that Last in Times of Need* (HarperSanFrancisco, 2002), 16.

[2] Ibid.

[3] David F. Ford, *The Future of Cambridge University* (Cambridge: Cambridge University Press, 2002).

[4] For the longer conversations of the past 18 months I would like to thank Markus Bockmuehl, Nicholas Branson, Christopher Brooke, Alec Broers, Mary Broers, Victoria Coulson, Deborah Ford, Gordon Graham, Malcolm Grant, David Harrison, Gordon Johnson, Melissa Lane, David Livesey, Anne Lonsdale, James Matheson, Tim Mead, John Morrill, David Newland, Onora O'Neill, Mica Panic, Ben Quash, Jem Rashbass, Anil Seal, David Thompson, Margie Tolstoy, Bryan Turner, Alan Windle, David Wilson, Richard Wilson, Joanna Womack and Frances Young. I am also grateful for papers presented to The Durham Institute of Durham University at two conferences on 'The Future University' for representatives of British and German universities. Above all I thank Daniel Hardy, Tim Jenkins and Ben Quash for many hours of concentrated discussion, and Daniel Hardy in addition both for his three papers to The Durham Institute discussion and for his substantive comments on the text of this lecture.

https://doi.org/10.1017/S0036930604000109 Published online by Cambridge University Press

debates about governance; the need to decide priorities while taking into account quite a large financial deficit; the planning now under way for our biggest ever fundraising campaign to coincide with our 800th anniversary; a number of serious issues facing our colleges; and the imminent arrival of a new vice-chancellor, Professor Alison Richard.

There are further reasons nationally, where the question of universities, and especially their funding, has – after a period of relative neglect for the past ten or so years – been one of the hottest recent political issues, culminating in last month's White Paper on The Future of Higher Education.

Perhaps even more importantly, there are reasons grounded in the whole situation of universities today, especially to do with knowledge and its role in our world. This university's new Centre for Research in the Arts, Social Sciences and Humanities (CRASSH) is at present in the middle of a two-year concentration on the theme of 'The Organisation of Knowledge'. Last month CRASSH joined with the British Academy to sponsor a conference in Cambridge on 'Changing Societies, Changing Knowledge'. It was concerned with such matters as the knowledge or information society, the knowledge economy, regimes of accountability, and intellectual values in relation to all this, and it specially focused on universities. The accounts of what is happening in this country and in other parts of the world made it clear that universities are in the process of transformations at least as extensive as in any previous period of their history. *Responding well to these transformations is our most fundamental challenge as a university. The nature of the internal changes required of us, as well as the ways we respond to national government policy, need to be inspired by a vision of what our core concerns as a major world university should be at this time. These are, I suggest, primarily to do with knowledge, its learning and teaching, its significance, its uses, its expansion and enrichment, and the institutional and collegial settings in which it best flourishes.* I will return to this.

2. A dangerous vacuum

Perhaps the most disturbing thing to emerge from the CRASSH conference was how little fundamental thinking universities are doing about their own future.[5] It may seem astonishing that, despite the whole range of disciplines being affected by the current transformations, there is so little collaborative

[5] Gordon Graham, Professor of Philosophy in the University of Aberdeen, spoke of 'one huge and glaring omission, one topic and context in which academics have signally failed to engage in critical thought and for the most part shown themselves sadly lacking in independence of mind. I mean the subject of the university itself'. 'Intellectual Values and the Knowledge Economy', paper delivered to the conference 'Changing Societies, Changing Knowledge', Selwyn College, Cambridge, 9–10 January 2003), 1. Cf. Gordon Graham, *Universities: The Recovery of an Idea* (Thorverton and

https://doi.org/10.1017/S0036930604000109 Published online by Cambridge University Press

intellectual effort to understand them and respond to them. It is, of course, nobody's field, and all of us want to get on with 'our own work'. Perhaps the situation is something like that of the natural environment in the early twentieth century. Disciplines studied aspects of it, but it was only when the environment was seriously threatened that it became a collaborative concern.

We may be in an analogous situation with our intellectual environment now. Universities are vital parts of the intellectual ecology of our world. There are many powerful groups who have a strong interest in changing universities to suit their purposes, affecting that ecology in ways that are likely to have long-term consequences. The practical significance of what appears to be a case of collective irresponsibility in failing to think about ourselves with anything like the rigour that we show within and (increasingly) between our disciplines is that *universities are far more vulnerable than they need be to others setting their agenda and shaping their life*. The outside influences and pressures will of course continue and perhaps intensify, and they can be good as well as bad. But if they meet with a virtual vacuum where there ought to be vigorous thinking, deliberation, advocacy and action, then we who have responsibility for universities in this generation risk failing one of the more justifiable accountability tests: that before future generations, who will convict us of failing to nurture and develop further for their benefit this precious inheritance.

My concern now is to take that accountability before future generations seriously in relation to this university. Some of what I say will apply to other universities, some will not, but what can be said in general about universities is beyond my brief here. I am only trying to make one contribution to a discussion within this university about this university – a discussion at present occurring only sporadically. Most discussion understandably concentrates on single elements that are seen (and with some justice) as vital to a healthy future – leadership, governance, management, financial planning, salaries, fundraising, business enterprise, access, the colleges, teaching, research policy, external partnerships, use of information technology, and so on. I will comment on a few of those, but my main concern is with the sort of ecology we have in which those are some of the niches.

Charlottesville: Imprint Academic, 2002), the best overview I have found of recent university history and the current situation in Britain.

Christopher Padfield, of Cambridge University's Corporate Liaison Office, spoke of the 'severe deficit in thinking about a contemporary "purpose" for universities'. 'Third Mission and Wealth Creation', paper delivered to the conference 'Changing Societies, Changing Knowledge', Selwyn College, Cambridge, 9–10 January 2003), 4.

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3. Endowment and a long-term intellectual and social ecology

I spoke just now of accountability across generations. We have a long-term ecology. One of the most encouraging (and least reported) parts of the White Paper published last month was its recognition of how crucial endowment is for long-term university flourishing and independence. Charles Clarke, the Education and Skills Secretary, said in his speech in the House of Commons launching the White Paper: '*First of all, we should face up to the truth that genuine university freedom comes through building endowment, rather than any other device. Universities in this country need to build up their endowments*'.[6] He admitted that recent history shows how problematic it is to rely too heavily on public money, and he promised incentives to encourage benefactions. The message of the Secretary of State is clear: there is a direct relation between our freedom and our endowments, so if we prize our freedom we ought to make building endowment a priority. Surely we ought to approach our forthcoming fundraising campaign as a major step, with government backing, towards greater independence of direct government financial support? Should we even aim at independence? Given the British tax structure and the absence of the sort of culture of giving that allows US private universities to be world leaders, even with new incentives it appears to me unlikely[7] that Cambridge could raise the estimated £2.5 billion of unearmarked endowment needed to make up for present government funding.

Yet a large increase in general endowment (including endowment of colleges) would be an immense help in enabling Cambridge to be more independent and sustainable long term. In the immediate future it would make possible a much higher level of scholarship and bursary provision. The government is surely right to be concerned about access. The appropriate things for Cambridge to do are to continue our extensive policy of links with schools and encouragement of applicants from less well-off backgrounds; to be fair and non-discriminatory in our admissions procedures aimed at

[6] Speech in House of Commons, 22 January 2003.

[7] Yet I am open to persuasion on this. Peter Gomes certainly thinks the target is possible. A further factor is the way alumni view their relationship with the university. When I asked Kenneth Rossano, who with his wife Cynthia Wight Rossano endowed this lectureship and feast in honour of Peter Gomes, to account for Harvard's success in fundraising, he said that the key factor is undoubtedly the enthusiasm and dedication of alumni and the care Harvard takes to cultivate and organise them. The form of belonging has parallels to that of belonging to a church: it is seen as a lifetime commitment, with lifetime giving being part of that, all in the service of a body that must be enabled to benefit future generations in a similar way to one's own. It is likely that Cambridge's long-term future depends more on whether it can develop this sense of commitment than it does on tax incentives.

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admitting the best students; and to try to ensure that no student to whom we offer a place has to turn it down for financial reasons.[8]

If we do move in the direction of greater financial independence, however, we need to do it not only because of what even Mr Clarke agrees is the unreliability of governments. Our motivation should be rooted in the ways in which the quality of our university and its colleges is closely related to a long-term intellectual and social ecology. Education is transgenerational. It takes place best in the context of arrangements that have been developed, tested and adjusted over generations. *The intellectual values that are at the heart of education and research are extraordinarily long-term ideals and practices in our civilisation: truth-seeking, rationality in argument, balanced judgement, integrity, linguistic precision, and critical questioning*. Their cultivation is greatly assisted by lively traditions of practising them in physical and social settings designed for their flourishing across generations. Indeed, in the course of preparing this lecture the reality that has most impressed itself upon me, from a great many angles, has been this: *the thriving of those intellectual values is intrinsically linked to quality of collegiality; and, because these socially embedded values aim at knowledge and understanding that are cumulative, and in principle unlimited in breadth and depth, they are served best by long-term collegial settings dedicated to their practice*. These values are continually under threat from many quarters; and endowment, which is a key material condition for their social embodiment over centuries, can enable them to be better sustained and to be protected against those who fail to value them or even undermine them. Our intellectual environment needs habitats that can grow oak trees as well as cabbages, and that can be protected against the chainsaws which are able to level a forest of oaks in one parliamentary afternoon.

4. Reinventing Cambridge University

The continuity of what is highly valued is not the only advantage of a long-term institution. A historian of the university, Dr David Thompson, has said that, looking at the history of Cambridge, we can see it marked by periodic reinventions of itself. We have in fact been very different in different periods. 'We have always attempted to change not by revolution but by reforms that have recapitulated and renewed those traditions which we have most valued'.[9] The foundational medieval pattern; Renaissance and Reformation learning; Newtonian mathematics and science; the greatest

[8] I would want to extend that also as far as possible to non-British students, so that we can attract some of the best students in the world. The Gates Scholarships have been one of the most important enrichments of the Cambridge student body in recent years.

[9] Ford, 'The Future of Cambridge University', 3–4.

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transformation of all in the nineteenth- and twentieth-century explosion of disciplines and subdisciplines in the arts, humanities, and especially the sciences and technology; and the new tradition of the enterprise or entrepreneurial university – all these are still with us in various ways. *Our long-term history therefore should encourage us to be sensitive to transformations in knowledge and in society and to be willing to respond to them by further reinvention.*

What about our present situation? I see a strong case for fresh reinvention. The core factors are intrinsic to the dynamism of knowledge and its use, and especially its relation to the people who discover it, teach it, learn it, interpret it, and apply it. I would suggest that this university, along with others, is being asked to meet four interconnected challenges simultaneously.

Challenge no. 1: uniting teaching and research

First, can we be a place where teaching and research come together fruitfully?

The White Paper envisages some universities that only teach. There are also many institutions and organisations that do only research, or that combine their research with things other than teaching.[10] But we, as our statement of core values emphasises, do unite teaching and research, and that has become an increasingly difficult thing to do. If we are to sustain it, meet the difficulties, and fulfil its immense potential then we need first of all to renew our recognition of its worth.

I would summarise that worth in terms of the deep affinity and mutual reinforcement between the habits, values and orientations of good teaching and good research. Both require those intellectual values of truth-seeking, rationality in argument, balanced judgement, integrity, linguistic precision, and critical questioning. Both involve disciplined, patient attention to the natural or social world, to texts that always have a surplus of meaning, to alternative hypotheses or interpretations, to complexities that resist our simplifying, and to particularities that defy our generalising. And each at its best releases new energy and offers moments of sheer joy. Most of us who are passionate about our fields have caught the passion from our teachers. Our own passion for teaching is certainly a matter of relishing the interaction with good students and passing on in gratitude something of what we have been given; but it is also a recognition that, besides the contribution to

[10] In the USA 'there are over 3000 institutions of higher education. Only a few hundred are recognizably universities and of these not more than 200 are research-based. Moreover, even in the leading research-based universities, most teaching is not done by researchers but by short-term contract workers (Jacob and Hellstrom, 2000)'. Gerard Delanty, 'Ideologies of the Knowledge Society and the Cultural Contradictions of Higher Education', paper delivered to the conference 'Changing Societies, Changing Knowledge', Selwyn College, Cambridge, 9–10 January 2003, 9.

https://doi.org/10.1017/S0036930604000109 Published online by Cambridge University Press

many spheres of life made by our students, those who continue in our own field as academics are likely to contribute to it far more than we ourselves. So any concern for future research in our field beyond our own individual contribution supports *the wisdom of cultivating lineages of researchers who are also teachers*.

But beyond the need for continuing to support new thought and research in specific fields, today's situation makes the case for the cross-fertilising of teaching and research even stronger. With so many jobs being knowledge-intensive, and with continual change in knowledge, information and skills requiring not only habitual new learning but also the perceptive integration of the new with the old, there is a sense in which we are *all* researchers now. In a wide range of jobs and professions we need to be active seekers of knowledge and understanding, to be able to sift through vast amounts of data, to grasp significant patterns and make new connections, to test hypotheses, to propose solutions, to make judgements of fact and value, and to be able to do all that collaboratively as well as individually; and these are just the things that can best be learnt through apprenticeship to those who are at the forefront of their field – if they are willing, and enabled, to teach it.

Once the case for the uniting of teaching and research is granted, then the question has to be faced: how well is the marriage actually doing in Cambridge? We do outstandingly well by all the criteria of research assessment and teaching quality. That is good, but surely they should not be our main measure, not least because those appraisal procedures do not take into account (and are even disruptive of) the interrelation of teaching and research. If we go by what is required for our symbiosis of research and teaching to meet the demands both of our expanding and complexifying spheres of inquiry and of our students as lifelong learners and researchers, then we need to discuss and take action on a range of questions. Can we make it more attractive for researchers to spend some quality time teaching undergraduates? How can the colleges and faculties collaborate better? How might staff workloads be reduced? Could our Tripos courses encourage far more active learning and collaborative learning akin to research? How can postgraduate education be improved, and might postgraduates learn more through apprenticeship-like relationships? And what about the creative uses of information technologies? – to visit our new Centre for Applied Research in Educational Technologies (CARET)[11] is to glimpse how computers can enhance our face-to-face teaching as much as they do our research.

[11] I am grateful to Jem Rashbass, Director of CARET, for introducing me to the various areas of research and their guiding principles. At last month's CRASSH conference mentioned above, Steve Woolgar of Oxford University, who had headed a £3.5 million,

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The list could go on; but the main point is that we have no reason to be complacent about this core value of uniting teaching and research. Our ways of doing things up to now have brought us to the top of many league tables, but those criteria have almost nothing to say about this marriage's vitality, daily life, and resourcing. We need to pay much more attention to this.

Challenge no. 2: interrelating fields of knowledge

The second challenge was brought home to me when serving for three years on the university's Personal Promotions Committee. Its members are required by the guidelines to read all the papers submitted about every candidate put forward for a personal professorship or readership by every faculty and department – physical sciences, biological sciences, technology, arts, humanities, social sciences. So one spends days reading through personal statements, CVs, faculty statements, faculty minutes, references in various languages, and overall assessments. It offers a quite extraordinary view of this university, and it is most impressive. One sits back in amazement at what is going on here. But one also cannot help asking the question: *how is all this connected?* What is the significance of these fields for each other? One finds that one is completely ignorant of major research going on in areas quite close to one's own. More seriously, it is clear that there could be all sorts of fruitful interconnections that are not being made. The explosion of knowledge and publication in all fields, and the development of new disciplines and subdisciplines, has not been matched by their interrelation.

So the second challenge is how to interrelate disciplines in appropriate ways and across a wide range. Universities surely have a special responsibility here. Top-level work may go on in many settings – in industry, in think tanks, in specialised research institutes of many sorts; but universities that maintain a broad range of disciplines are a different sort of environment, one with greater potential

five-year ESRC project on 'The Virtual Society', researching with 76 social scientists from 26 universities the impact of electronic technologies on society, was cautious about the transformative claims being made for these technologies, while also being enthusiastic about their value. His conclusions included such principles as: that the impact and use of new technologies depends crucially on local social context; that these new technologies tend to supplement rather than substitute for existing practices and forms of organisation; and 'the more global the more local'. In my own limited study of the field a crucial benefit appears to be that the relationship of 'richness' to 'reach' can shift so that both can be enhanced. This seems to be confirmed by the research at CARET, where the 'richness' of traditional Cambridge methods of intensive, small-group, face-to-face teaching can be enhanced by appropriate uses of technology, while at the same time the interaction of such groups with other groups, networks and sources is extended in 'reach'.

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for interaction and cross-fertilisation. It is hard to say that even a fraction of this potential is realised. Can we develop our university in such a way that we deal better with this challenge? Can we avoid the dangers, of which Cambridge is acutely aware, such as that of losing rigour and depth in the quest for breadth and connections?

We have in fact been interdisciplinary in many ways for a long time and it has accelerated in recent years. Just read through the blue pages in our telephone directory and note in alphabetical order: the African Studies Centre, the Centre for Brain Repair, the Cambridge Institute for Medical Research, CRASSH, the Institute of Criminology, Development Studies, the Centre for Advanced Religious and Theological Studies, the Centre for Family Research, and so on. That is only up to F, and I have already left out some centres, and all departments and faculties, many of which combine several disciplines.[12] (Our Telephone Network Directory offers the best single overview of the university: it should be required reading for all new students, staff, and secretaries of state.) Yet despite this, in comparison with the potential, the present provision seems inadequate, and also somewhat arbitrary and precarious – largely because most of those centres and institutes rely on raising outside, short-term funds.

It is widely acknowledged that many of the most significant and exciting possibilities in the advancement of knowledge and understanding are interdisciplinary. If the opportunities are to be taken then there are considerable implications for how we conceive ourselves as a university, what our priorities are, the partnerships we cultivate, how we fundraise, and how we organise ourselves. This amounts to a further dimension of reinvention.[13]

Last November I attended the opening of the Cambridge Genetics Knowledge Park. It is not yet even in the telephone book.[14] Its motto is 'genetics knowledge for the benefit of society'. It has five dimensions:

[12] Continuing in the same incomplete manner, I would note: the Hutchison/Medical Research Council Research Centre, the Centre for International Studies, the Isaac Newton Institute for Mathematical Sciences, the Centre for Latin American Studies, the Nanoscience Centre, the Institute of Public Health, the Scott Polar Research Institute, the Centre for South Asian Studies, Strangeways Research Laboratory, and the Wellcome Trust/Cancer Research UK Institute of Cancer and Developmental Biology.

[13] Initiatives are always likely to arise out of the intensities of particular inquiries meeting complex questions that break the bounds of single fields, but there is also a university level to this intellectual ecology, and perhaps that will develop best by the university improving its ways of accompanying reflectively its interdisciplinary initiatives, sharing what is learnt, and encouraging new initiatives.

[14] Its Director, Ron Zimmern, is found under Strangeways Research Laboratory.

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scientific; clinical; public health; commercial; and ethical, legal and social (with three ethicists, based in the faculties of law, social and political science, and history and philosophy of science). It aims are: bringing together communities; integrating genetics knowledge and relating it to other fields; dissemination, education, and training; and contributing to policy and public health. From within the university the park has drawn together 11 sets of disciplines and ten institutes or units, and from outside other universities and bodies are collaborating. This is a daring experiment in interdisciplinarity.

Challenge no. 3: contributing to society

But it is about more than interdisciplinarity, and leads into the third challenge facing the university. In November 2001 the Regent House approved the following statement: 'The mission of the University of Cambridge is to *contribute to society* through the pursuit of education, learning, and research at the highest international levels of excellence'. The higher education funding body, HEFCE, now has, besides the funding for teaching and research, a 'third stream' concerned with contribution to society, and especially the economy. Charles Clarke at the launch of the White Paper named three 'great missions' of universities: 'research, knowledge transfer and, perhaps most important of all, teaching'.[15]

The emphasis on teaching and research is encouraging; the restriction of the third dimension to knowledge transfer is worrying. Compare it with what the Cambridge Genetics Knowledge Park (which is largely government funded) is attempting. That is about knowledge transfer – to clinical practice, public health, and scientifically based business enterprises.[16] But it is also

[15] Speech in House of Commons, 22 January 2003.

[16] The latter has become an important new dimension of Cambridge in recent years with science parks and new 'knowledge transfer' relationships between business and the university in 'Silicon Fen'. The government has also financed the start-up of the Cambridge Massachusetts Institute (CMI), linking the university with the Massachusetts Institute of Technology. The value of these to both the university and the national economy seems clear, but government, university and business partners need to beware of overstressing both the importance to date and the future potential of the sort of knowledge transfer that turns parts of universities into businesses or links them very closely with businesses, let alone making these the key drivers of university strategy. For an instructive Australian study, see Simon Marginson and Mark Considine, *The Enterprise University: Power, Governance and Reinvention in Australia* (Cambridge: Cambridge University Press, 2000).

At the CRASSH conference mentioned above, Jeremy Klein of Generics Group, which works with a large number of universities in several countries on knowledge transfer and 'spinouts', offered a sobering study of the potential in the UK. He showed that for a short time there was a 'bubble' in the attractiveness of knowledge-based

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concerned with the *significance* of genetics as one of the major new factors in our world. Genetics affects how we understand what it means to be human and our relationship to all living organisms; through commercial exploitation and intellectual property issues it affects the balance of power in our world; there are large public policy questions; at every turn there are ethical issues about the uses of our knowledge and associated techniques, often with life or death significance for individuals; and the implications of decisions and practices in this area can last for generations. So a responsible attitude to knowledge transfer, rooted in commitment to the flourishing of future generations, must move into issues of meaning, values, ethics, and long-term commitments. There are very few places in society where there is even an attempt to consider all those together. *Part of the value of universities to society is that they can be independent places of debate and deliberation about such matters in the interests of the long-term ethical and intellectual ecology of our civilisation.*[17]

This point therefore extends far beyond genetics. The CVs of those candidates for personal promotion were to me a convincing refutation of any caricature of Cambridge as an ivory tower. These top academics have innumerable links with businesses, public and voluntary bodies, schools, the media, professions, and major spheres of national and international life. Activities range from advising, commenting and consulting to full partnership and leadership responsibility; and in many spheres they have what might be called a 'ministry of meaning'. A healthy university whose present members take on this range of responsibilities, and whose graduates cover an even wider range in every walk of life, should not have its contribution to society measured by the ridiculously crude metrics in use

companies, but that the bubble has now burst, with many casualties. His study of areas where university-generated companies and partnerships have been successful in varying degrees suggested that the best-known successes might not be good guides for the future because their achievements were often due to a stage of development of particular industries that has now passed. The message was clear: universities should certainly continue to engage in knowledge transfer and partnerships, but they would do well to concentrate mainly on their core activities of teaching and research.

[17] The independence is not only to allow an integral approach, debate of controversial issues, and long-term commitments; it is also important in allowing for 'blue skies' research and theorising. Part of academic work is to do with valuing knowledge for its own sake and allowing ourselves to be led where the questions take us. This 'moment' of singleminded pursuit of truth has to have its own integrity. It need not by any means exclude or be in competition with the further 'moment' that asks about significance and use, but it is important to maintain the freedom of the first moment – and even whole departments that are dedicated to it.

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in public debate at present.[18] One further responsibility might be to come up with more appropriate methods of assessing this reality – because there should surely be no objection to describing and evaluating it in categories that really fit.[19] And yet another responsibility might be to communicate the truth of what we do far more effectively than at present, and to become more confident, passionate and politically astute advocates for the value of universities.

In all this, however, we need to make sure that our third mission is in line with our primary commitments. Of the world's great challenges (a phrase I borrow from the mission statement of the university that is our closest partner, the Massachusetts Institute of Technology) the main ones for us must be *how to teach, study and research in responsibility towards the long-term flourishing of our world*.[20] In doing that our chief contributions are well-educated people and excellence in the pursuit of knowledge and understanding.[21] Yet once this is taken seriously, and once it is recognised that teaching and research involve responsibility for the wider significance and uses of knowledge and understanding, then it also needs to be recognised that *there are few other great challenges in our world towards which universities do not have some responsibility*. In my own field of theology and religious studies, for example, we are both acutely

[18] As Onora O'Neill shows in her Reith Lectures (*A Question of Trust: The BBC Reith Lectures 2002* [Cambridge: Cambridge University Press, 2002]), one of the problems with inappropriate and unintelligent criteria is that they act as perverse incentives, undermining or distracting from high-quality performance and significant contributions. In relation to universities this is especially damaging in the area of contributing to society: no credit is given, for example, for involvement in schools, for a wide range of consultative roles, or even for many types of publication in print and other media that widely disseminate knowledge and understanding. I know of colleagues in other universities who are forbidden to contribute to textbooks or write articles that cannot be counted towards the Research Assessment Exercise.

[19] Why might some British universities not join together to produce much more sophisticated metrics for many spheres of society that are now suffering under measurements, and associated ideologies, that, as Onora O'Neill has argued (in her Reith Lectures, see previous note), are often distorting and counterproductive?

[20] One dimension of this that is often underemphasised is the role of universities in testing and evaluating knowledge and understanding, coming (often slowly) to a sense of what is most significant in a field, and what, for example, deserves to become part of undergraduate and graduate courses and textbooks. New knowledge and understanding is produced in a great many places in our society; there are far fewer places where this is sifted, refined, integrated, and passed on as part of a coherent discipline or set of disciplines.

[21] One danger in the way Cambridge has developed in recent years through adding a great many lateral connections is that these core concerns cease to be central enough in our strategic planning.

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aware how many challenges the world's religions pose at present, and how few universities are equipped to deal with them.[22] How might the questions of meaning, truth, and practice that arise within the religions, about the religions and between the religions be done justice to through academic disciplines in ways that are responsible towards those disciplines, towards the religious communities, and towards the future of our world? Analogous questions arise in other fields, and their global range reminds us that, if our excellence is to be measured by international standards, then so too the society to which our contribution is made ought to be world society. The 3,843 non-British nationals who in 2001 were registered as students of this university must not be seen only as a contribution to Britain's balance of payments; they also represent a responsibility towards every continent, and one which we would do well to consider more deeply.[23]

Challenge no. 4: sustaining and reinventing collegiality

The fourth challenge, I would suggest, is the most critical of all for us at this time. In his 1,000-page work *The Sociology of Philosophies: A Global Theory of Intellectual Change*,[24] Randall Collins writes a comparative history and sociology

[22] Having spent time as a student or staff member in Irish, British, US and German universities, and more recently had relationships with Dutch, Chinese and Indian universities, I am convinced that the pattern in many British universities of combining theology with religious studies, allowing (at its best) for those who are members of particular faith communities, together with those who are not, to study, teach and research together, could be of considerable importance for the future of the field internationally. Cf. below on what is appropriate for a world that is simultaneously religious and secular.

[23] The global dimension of the transformations in universities is one that I am largely ignoring in this lecture, but it is of increasing importance. In particular there is the development of consortia of universities and a wide range of partnership arrangements. Cambridge is doing various things in this sphere, with universities ranging from the USA to China, but compared with many others it is not far advanced. The Humboldt University in Berlin, for example, has more than 100 partnership agreements with other universities. The White Paper is weak on this international dimension, and does not begin to do justice to the proliferation of high-powered consortia and agreements to cooperate. This internationalising of higher education poses a problem analogous to that of international business corporations for any national government. On the specific issue of European Union students the White Paper (Section 7.53, p. 90) envisages EU students paying up to £3,000 in tuition fees like UK students, which would seem to involve breaking current agreements. With many German universities (where 99 per cent of undergraduate provision of higher education is free) now offering courses in English, their attraction to British students is likely to increase greatly after fees increase in the UK.

[24] Randall Collins, *The Sociology of Philosophies: A Global Theory of Intellectual Change* (Cambridge, MA/London: Belknap Press [Harvard University Press], 1998).

https://doi.org/10.1017/S0036930604000109 Published online by Cambridge University Press

of intellectual communities, ranging through ancient Greece, India, China, Japan, Islam, Judaism, Christianity, modern Europe and America. His key discovery is very simple. It is that *at the heart of intellectual creativity is intensive, disciplined, face-to-face conversation and debate between contemporaries and across generations*. He marshals a large amount of data to show that this was so in the days before printing, it continued after printing, and it still holds true in an age of rapid travel, mass communications and computers. It is sometimes encouraging to have the intuitively obvious confirmed at length! So the fourth challenge is *the sustaining and reinventing of forms of collegiality in which these intensive conversations within and across generations can flourish*.

In our colleges we have probably the most distinctive feature of this university. They are long-term environments of conversational culture centred on meals. (After this lecture many of you will have the delightful setting of a feast for dissecting what I have said – all those collegial knives!) Colleges gather together from different generations and from all disciplines *people* who are dedicated to learning, teaching and research. Knowledge inheres primarily in *people*, rather than in the storage facilities of books and computers. The problem of an aggregate of unrelated disciplines is not met by some comprehensive system of knowledge accounting for them all – even were that possible it would soon be out of date; rather it is to be met by developing further our collegial culture.[25]

Colleges allow for many patterns of conversation between undergraduates, postgraduates, fellows and other members. Time and again undergraduates attest how important it is to be in close contact with students of different disciplines, and that the small-group teaching based in colleges has been their core learning experience. Beyond these advantages for members there is also the quality of hospitality that colleges make possible, especially towards academics from all over the world. A further benefit, in a situation where much research, 'knowledge transference' and 'ministry of meaning' work goes on in short-term groups formed around problems and projects, is that colleges both allow for short-term hospitality in interaction with other academics and also give a strong home base from which to go out. There is also the advantage of having 31 very different micro-environments in the university where different things can be grown and where new things can

[25] Daniel Hardy has suggested in conversation the idea of a university as a 'corporate encyclopedia', but one that is interconnected not arbitrarily through alphabetical order but intrinsically through the collegiality of those pursuing different disciplines while being in conversation with each other and at times in collaboration.

https://doi.org/10.1017/S0036930604000109 Published online by Cambridge University Press

be tried and sometimes fail (without having too disastrous results).[26] And a sober look at the costs of all this in relation to benefits makes clear that they are extraordinarily good value for money. Yet there are pressures for these long-term, high-quality educational environments to be eliminated or greatly modified. Surely the response should be to face the criticisms, and to reform where necessary, but overall to make the case for the even greater appropriateness of colleges in today's situation?

The disappearance or serious weakening of our colleges would be an ecological disaster for Cambridge's education and intellectual life. The twentieth century was a period of unprecedented collegial creativity in Cambridge – between the 1950s and 1970s 11 new colleges of diverse types were added.[27] Even so the colleges have been outstripped in many ways by the far more massive expansion of faculties and research institutes. We probably still need some new colleges – for which the land is there in north-west Cambridge. Most present colleges certainly need more endowment. But we also face a more basic challenge to collegial creativity. The critical question is: *how might colleges realise better than they do at present the quality of collegiality required to foster interplay between teaching and research, interdisciplinarity, and contributions to national and international society?* Inspiring our efforts at rediscovery and reinvention might be that historical panorama described by Randall Collins, whose core dynamic of intellectual creativity centres on exactly what colleges do best.

[26] In different terms, the colleges have some of the features of an internal market in the university, with some competition for good students and fellows, and a determination to do well in the Baxter Tables that analyse their academic performance.

[27] Peter Brooke in a letter (22 January 2002) to me wrote: 'Between the 1950s and 1970s we actually did found 11 new colleges in Cambridge – 11 of the 31 are either totally new foundations or converted institutions of that period; a very remarkable achievement. Let us observe two contrasts: of the other 20 colleges 14 are medieval academic chantries – founded to support (mostly) graduate students and pray for their founders and benefactors; two were late 16th-century puritan foundations – with purposes so little different from the pre-reformation colleges that the greater part of the statutes of Emmanuel was copied (almost word for word) from St John Fisher's for Christ's! – the 17th college was Downing founded (very oddly) by the Court of Chancery in 1800; and out of several 19th-century attempts, three survived, your own Selwyn, and Newnham and Girton. That is to say, there is no period except the mid-14th century when founders have been so active as in the 1950s–70s. . . . Four pressures particularly inspired the flurry of foundations. 1. The needs of university teaching staff . . . 2. The urge to gender equality . . . 3. The urgent need to provide for research students . . . 4. Visiting scholars – a major feature of the Cambridge scene, brought here by the immense prestige of our labs and the best working University Library in Europe . . .' Cf. Peter Brooke, *History of the University of Cambridge, 1870–1990* (Cambridge: Cambridge University Press, 1993), *esp.* Ch. 18.

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And they are only one set of collegial niches in our environment. There are also all the faculties and departments, the centres and institutes, the longer- and shorter-term partnerships, and the numerous teams, groups, projects, societies, syndicates, lecture series, and one-off events. Collegiality needs to be valued and cultivated at all levels of the university.

But what holds all this together structurally? What about the institution of Cambridge University as a whole? *The immediate implication of valuing collegiality is that we have to pay attention to our polity, governance and management*. This has been much discussed in recent months, and the verdict after recent votes must be that there is a great deal of unfinished business. Change in large institutions is one of the most difficult things to achieve satisfactorily. In a self-governing institution such as ours it requires the sort of broad participation, mature deliberation, and persuasion that there is a better, wiser way that we obviously have not yet achieved. In between the extremes of those who resist any change and those who favour strongly centralising solutions are, I think, most of us who might perhaps agree on the following: *we are a large and expanding institution whose governance and management have not kept pace with the complexity of both internal and external factors, including money; we want a better balance between continuing self-governance, central leadership, and management; we see the need for strategic planning in which academic and financial considerations go together; we long for a renewal of the trust that has suffered in recent events; and above all we want any prescription to be clearly in the service of the flourishing of our long-term environment of teaching and research, interdisciplinarity, contribution to society, and collegiality*.

Is it beyond our ability to devise such a prescription and then apply it? The stakes are high, with the threat of government intervention, the danger of demoralising our best administrators, above all the risk of failing to sustain this extraordinarily fruitful environment. If we succeed, besides the obvious benefits to the university and its mission, we might also have modelled a sort of healthy institution that our society desperately needs. There is a shortage of private, civil and state institutions that can combine self-government, leadership and management in the effective service of a long-term vision.[28] Even our national government is finding it extremely difficult to reform parliament, so one trusts that it will understand why we too cannot come up with an instant solution. While there is urgency, we should surely take some

[28] Another encouraging feature of the White Paper is its concern for the universities as self-governing institutions and its commitment to reduce regulation where possible. If this were combined with generosity in enabling endowments to be built up then it is just possible to imagine a strengthening of universities as vital institutions of our civil society, against the trend of state centralising and detailed supervision in recent decades. On the latter see Graham, *Universities*.

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time for this process – I think it is ridiculous to suggest that our world-class performance as a university is immediately threatened. But there does need to be *a well-conceived process of intensive conversation, consultation, deliberation and decision-making that is aimed not only at governance but also at a vigorous articulation of our purpose and priorities*.[29] This would be helpful in many other ways: in letting students and staff appreciate better what we are all part of, in advocacy to government and the media, in fundraising, in strategic planning, and in renewing our confidence in what we are about. If we do not do this, the vacuum created by our irresponsibility and irresolution will surely be filled by others and by less well-considered ideas – and even perhaps by coercion aimed at producing short-term results. The first practical test is already facing us: the government has called for responses to the White Paper by 30 April 2003 and is now entering into dialogue[30] with higher education institutions. What will the quality of our discussion be? How many of us will take part? Who will put together our response? How will we advocate our views? Our immediate challenge is crystal clear: to produce the best possible response.

5. Wisdom and its traditions

There is, however, one further consideration which has a pervasive significance for all the topics I have discussed and not least for our corporate deliberations. I have frequently used the imagery of environment and ecology, which encourages an integral understanding that tries to do justice to complex long-term dynamics and their interplay. I have also stressed the inseparability of knowledge from questions of meaning, value, ethics, collegiality and transgenerational responsibility. There is a term for the sort of understanding that attempts to think through such matters together, with

[29] One way of putting this is that we need to discover an appropriate form of collegiality at the level of the university as a whole.

[30] The use of the word 'dialogue' in the White Paper is another encouraging sign. It might not be an understatement to say that Britain's greatest challenge in higher education at the national level is to rebuild the relationship between the government and the universities, now at a low ebb after decades of failure to engage in the sorts of trust-based consultation and dialogue that might build consensus. Might Mr Clarke be reversing this trend? How will the universities respond to his invitation? It would be worth attending to the ways in which the German government and universities go about building consensus, even though German universities are in theory far more dependent on their government. Using US universities as the main point of reference internationally has many advantages, but the role of the state in Britain has more parallels with Germany and other European countries. Given strong direction from the centre, consensus-building, together with respect for the differences between institutions (another welcome feature of the White Paper), is the sensible way to have a long-term policy that has full cooperation from both sides.

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a view to the better shaping of life. It is *wisdom*. This is not only desirable when we think about the university's future; it is also classically the most comprehensive ideal of education, beyond information, knowledge, practice and skills. *The goal is to unite knowledge and understanding with imagination, good judgement and decision-making in life and work*.

Wisdom is even becoming a research topic in various disciplines. There is a 'Berlin Wisdom Paradigm' developed at the Max Planck Institute for Human Development, and at the last meeting of the Syndics of Cambridge University Press that I attended we accepted for publication a 'Handbook of Wisdom' written largely by psychologists and educationalists. It is good to see an ancient concept taking on new dimensions, and I would suggest that universities also reappropriate it. The questions that we are facing are of such range, complexity and long-term significance that we need the resources of the deepest wisdom traditions, ancient and modern, religious and secular. Let me just say a little about that last pair.

Our November 2001 statement of core values makes one striking omission in comparison with the university's statutes and the statutes of most of our colleges: it fails to mention religion. It does mention 'sport, music, drama, the visual arts, and other cultural activities'. I want to suggest that, in this understandably sensitive matter, we face the reality of our university, our nation, and our world. None of them can be labelled simply religious; none can be labelled simply secular; *all are both religious and secular*. Nationally that has been acknowledged by this government in its policy that primary and secondary education be both religious and secular. At the global level, the fact that a large majority of the world's population is directly involved in one or other of the world's religions has come back into consciousness recently, after being eclipsed – at least in the West – for much of the twentieth century. But what about religion and this university? I want to make just two points.

The first is that we need to make sure that the space occupied by religion in our statutes and in the whole conception and life of this university over many centuries is not left empty. Matters like intellectual values, education, the uses of knowledge, and long-term responsibility toward human flourishing cannot be detached from frameworks of overall meaning and from our convictions about what it means to be human, about justice, peace, and the nature of a good society – from what Durkheim called the compulsions that order society, which he found exemplified especially in religion. Our religious situation has of course undergone changes, but to suggest that disappearance is the right description, to be reflected in disappearance from a description of our university's identity, seems to me not only untrue but unwise. To acknowledge the significance of religion in our identity, past and

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present, might not only be a matter of political correctness – or, in some eyes, incorrectness. It might also be the sign of a determination, as we try to orient ourselves to serve this and future generations better, to draw on the riches of religious as well as secular wisdoms. Often, of course, they are inextricable from each other – just think of how the Hebraic, Hellenic, Latin and Christian strands have intertwined in the Western civilisation that has shaped Cambridge. *Surely our reinvention as a global university for the twenty-first century should involve a collegiality to which both those who are wisely religious and those who are wisely secular are encouraged to contribute?* [31] The devil, of course, is in the detail of deciding what is wise and what is not: but on the sort of issues with which we are concerned I suspect that usually divisions are not along confessional lines.

The second point is that, if we were to do justice to the religious and secular dimensions of this university, it might be salutary for the peace of this and future generations. We may now be on the verge of a war that is inextricable from a history of deep religious divisions. Those have been in the making for centuries, and are likely to take centuries to heal – if the world is not destroyed first. *Long-term institutions with responsibility for the education of future generations need to be part of the healing if they can*. It may be that when future generations assess Cambridge's contribution to public life in our time they will judge it at least as important that we educated the present Archbishop of Canterbury and Chief Rabbi as that we educated the Secretary of State for Education and Skills. Let us shape a university that might go on producing successors to all three.

6. Coda for St Valentine's Day

Finally, since it is St Valentine's Day, let me read you some verses from the Song of Songs, chapter 7, verses 1ff.:

> How graceful are your feet in sandals,
> O queenly maiden!
>
> The curves of your thighs are like ornaments,
> the work of a master hand.

[31] Universities are one of the few settings where those of various religions and none can study together and engage with each other on topics of common concern. Many universities are dedicated to a secular ethos; others are confessionally religious. I would argue for the importance in the twenty-first century of there being some universities that are both religious and secular. Cambridge already has this character, in fact, and would do well to acknowledge and sustain it.

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Your navel is a bowl well-rounded
that will never lack spiced wine.

Your waist is a mound of wheat,
encircled by lilies.

Your two breasts are like two fawns,
twins of a gazelle.

Your neck is like an ivory tower.[32]

An ivory tower![33] The other name for this poem is the Song of Solomon, the supreme biblical figure of wisdom. What if the imagery of an ivory tower were to go back to these origins? The resonances with academic life might then be with the passionate desire that motivates us at our best, the elusiveness of what we pursue, the ecstatic beauty of what we sometimes discover, and the abundant fruitfulness with which the Song is filled. And the figure of Solomon, to whom, besides the Song of Songs, the diverse wisdoms of Proverbs and Ecclesiastes are also attributed, might inspire in us a love of wisdom that is also a wisdom of love.

[32] The translation draws on the New Revised Standard Version, the Revised English Bible, the New International Version and the New Jerusalem Bible.

[33] I am grateful to Chad Pecknold for drawing my attention to this first occurrence of the phrase. I am also grateful to Josh Robinson for research on the term, showing that its use meaning seclusion or separation from the world and its harsh realities seems to come from Sainte-Beuve in 1837. Sr Edmee Kingsmill SLG in a letter to me (4 February 2003) quotes Marvin Pope: 'One may wonder how many of those who use the term are aware of its original biblical application to milady's neck' (Marvin Pope, *Song of Songs: A New Translation with Introduction and Commentary* [The Anchor Bible; New York: Doubleday, 1977], 625). It seems quite possible that Sainte-Beuve himself did not have the Song in mind when he began the modern usage.

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