

"Vice-chancellor, I think you should know that we have a crisis"

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1. Warnock - is there a crisis?

At the end of the Higher Education Foundation's weekend seminar on "The Crisis in Knowledge for Higher Education", Geoffrey Warnock offered some closing reflections. He invited participants to imagine the situation where the Registrar approaches the Vice-Chancellor with the warning "Vice-Chancellor, I think you should know that we have a crisis in knowledge for the University", much as he might report a sudden decline in applications for science degrees, or an outbreak of salmonella in the kitchens. The example was intended to poke gentle but challenging fun at a fairly rarefied debate, to bring us "down to earth", and to ask the question, what action should anyone take, and what would be different, if this were true? The implication was that the crisis might only be in the overheated imaginations of a small inward looking minority in the humanities and social sciences: a crisis of legitimacy in a number of fields whose academic standing has always been weaker.

The challenge was a proper one, and this paper is a modest attempt to respond to it, from the perspective, not of a philosopher nor a vice-chancellor, but an educator who has worked for some years in a variety of roles around the interface between public policy and post school education. I wish to argue that, for a number of reasons, there is a crisis of legitimacy for the university, related specifically to its role in creating, managing and disseminating knowledge, and that it may only survive as an institution if it comes to terms with a new, or perhaps revived, role within a much larger and more diffuse learning community.

While information and data may be the product of individual effort, knowledge is essentially social. It is not, in any real sense, knowledge until someone other than its creator has validated it, and in most cases it is the product of collective effort. This collective effort may be simultaneous, as with a team of researchers, or learners working together, or may be spread over time, as with much academic discourse in which scholars engage with their predecessors in writing and

continuing debate, over years (or millennia: people are still arguing with Plato). If this is the case, the question of who defines the boundaries and membership of the relevant community, and hence who the knowledge “belongs to” is a critical issue. One of the most substantial challenges to the university lies here, in the forces which are undermining its traditional ownership of the rules of intellectual discourse. If the university is to confirm its position in this territory, it must find a way of establishing a new legitimacy in relation to the creation and validation of knowledge.

2. A Changing Higher Education

It is not very long ago that the value of higher education to society was widely seen as self evident. The settlement for the higher education system created in the early 1960s by the Robbins Committee survived relatively unchallenged¹ until it met, rather late in the day, the iconoclastic public mood of the 1980s.

This came as something of a shock since, despite the absence of much empirical evidence, Government continued to press, through the late 1980s, for expansion in participation, in the belief that British economic competitiveness would be strengthened if higher education participation rates matched those of other developed countries. However, expansion changed who participated, and what they participated in, and created increasing resource pressures for institutions, while politicians began to argue that public investment would be more effectively directed at the early stage of education. The expansion also undermined one of the traditional roles of the university, of defining and maintaining a social elite, and calls began to be heard for the recreation of some grouping or hierarchy of universities. After the uncritical enthusiasm for expansion of the late 1980s came a new enthusiasm for accountability, for “consolidation”, and for a tightening of resources, whose rationale was strengthened by a steep rise in graduate unemployment.

At the same time, the University was being increasingly challenged by competition for its traditional core activities. A CVCP review of research in 1994 confirmed the large volume of traditional forms of research being conducted in the private sector; there was a steady expansion of higher level learning outside the universities (sometimes, but by no means always, validated

by universities); Government was beginning to support the development of high level National Vocational Qualifications which might not be awarded by universities; and graduates and teachers were beginning to recognise that graduate employment would depend less on traditional “academic” knowledge, and more on high level generic, core and “personal transferable “ skills.

These changes produced a growing anxiety about purpose. In 1994, Williams and Fry, writing for the Committee of Vice Chancellors and Principals themselves, commented that, “even amongst people who are well informed there is disagreement and confusion about what higher education is doing and what it ought to be doing”². A number of answers were offered.

Importantly, Barnett argued that the higher education system had been encouraged to transfer its allegiance from the academic to the operational, but within a limited notion of knowledge itself, which paid inadequate attention to the process of reflection and of dialogue. The National Institute for Adult Continuing Education (NIACE) argued the related case, that the arrival of mature learners as a majority in the system, called for a fundamental change in its nature³. Government launched a review of higher education, and then, recognising the political sensitivity of the questions, and especially of the central question of funding, created a committee of enquiry to make recommendations (after a General Election) about the purposes and operation of British higher education.

3. Four themes

For most of this century the University has been able to claim a monopoly of the ownership of particular forms of knowledge, based on a linear notion of knowledge creation, ownership and transmission. This monopoly is now rapidly being undermined, and I wish to argue that its survival will rest on its ability to address four major themes, which are all undermining its position. All have risen to prominence in national policy debate in the last decade, each is influencing what policymakers, at institutional, national and international levels think is important, and helping to shape their understanding of the purposes and structures of higher education. Some of the core traditions of higher education have much to contribute to this, but it is the traditions of collegiality, and individual commitment to the pursuit of knowledge which are central, not the monopoly power over that knowledge or its transmission.

The knowledge based economy

“The knowledge based economy”, has several meanings. At its simplest it suggests that the growing complexity of technology means that most productive activity will require higher levels of skills and knowledge. Every job in the economy of the future will involve more "knowledge", since products will be more complex; and everyone will need to be a better learner, because accelerating change will call for constant updating of skills and knowledge. This is the basis of the “raising the educational levels of the workforce” argument for expansion of HE.

However, there is a more profound notion of a knowledge based economy, which implies that knowledge is itself what is bought and sold, and that trade in "intellectual property", a traditional product of higher education, will represent a growing proportion of economic activity. The case is argued by Reich, who argues that the developed countries are developing a new three tier class system, with globally mobile knowledge workers - “symbolic analysts” - at the top, supported by a second service class who run restaurants, theatres and galleries, phone systems, computers and maintain cars and gardens. Below them will be the remnants of the old physical labouring classes, semi-skilled and unskilled, in insecure or no employment, and with increasingly little part to play in the economy and society.

In defining "symbolic analysts" as the new class⁴ Reich identifies three areas of growing skills demand in the American economy: "problem solving skills to put things together in unique ways", "the skills required to help customers understand their needs, and how those needs can be met by customised products", and "the skills required to link problem solvers and problem identifiers". He lists a plethora of occupational areas which fall into these categories, from the familiar, like engineers, doctors, lawyers, historians and novelists, through management consultants and information scientists, to marketing strategists, corporate headhunters and university professors. He describes their common features:

"Symbolic analysts solve, identify, and broker problems by manipulating symbols. They simplify reality into abstract images that can be rearranged, juggled, experimented with, communicated to other specialists and then, eventually, transformed back into reality. The manipulations are done with analytic tools, sharpened by experience.... Some reveal how to more efficiently

deploy resources..save time and energy. Other manipulations yield new inventions - technological marvels, innovative legal arguments, new advertising ploys...Still other manipulations - of sounds, words, pictures - serve to entertain their recipients, or cause them to reflect more deeply."

This is not unlike one of the traditional notions of the University, albeit translated into an unfamiliar language, and it has clear implications for higher education, where knowledge has traditionally been created and transmitted. Some of the knowledge which the consultant sells is academic in the traditional sense - propositional knowledge about electronics, mathematics, logic and so on. Much more is knowledge of how to analyse situations and contexts, and skills of questioning, listening, interpreting, and a body of experiential knowledge developed over time in many contexts. This knowledge is no less real than the academic, and is as subject to debate and theorising. It is made, however, outside the academy, and starts not from academic theory, but from problem solving.

There are areas of higher education where the implications of this are beginning to be recognised. Medical education is one, where a curriculum which used to begin exclusively with formal delivery of theory, is adopting "problem based" approaches, where students work in teams on case studies. What students learn first is that medicine is about exploring problems and finding the best solution in imperfect circumstances. They also learn how to work with others to solve problems, and to create "new" knowledge. The focus of the learning becomes the purpose of understanding and curing patients, not absorbing theory in the abstract, or pleasing the teacher. By focusing on the underlying purpose students are learning the process of knowledge creation, and developing deep, rather than surface, learning skills - becoming good doctors, not good examination candidates.

There is no denying the excitement which such approaches to learning generates, but the "knowledge market" model is not unproblematic. Not only does it shift our notions of what kinds of knowledge are valuable, it also makes knowledge itself the subject of commercial transactions. Universities in some countries have accepted this for many years, but the model is still widely perceived as inimical to the culture of collegiality and free exchange of knowledge, which dominates the rhetoric (if not always its practice), of the academic world. The scale and political

sensitivity of the issues involved can be seen in the developing international debates about intellectual property law.

Any market model also faces a critical problem, that unless the customer has some practical means of recognising quality, the market will tend to drive down quality in order to compete on price. This poses two problems: who defines quality, and who helps the "customer" to make wise choices for her or his particular circumstances? Traditionally both have been done, simultaneously, by the university. However, the university's principal loyalty was ultimately to the knowledge, conceived within a particular academic framework, rather than to the learner, or to the wider community where the knowledge was to be used. If it is to take this role in a new context it will need new authority and skills, based not on the traditional knowledge base, but upon a close understanding of the context in which the individual is operating, and skills in helping him or her to reflect on that context.

Reich's vision implies that knowledge is itself becoming a form of wealth, it is what individuals have to sell, in a world where physical labour and simple technical skill have become largely redundant. The world is dividing into "knowledge rich" and "knowledge poor", and the University becomes a major player in the direct distribution of such wealth. It also implies that a much larger group of people will be spending their lives in the kind of activities which used to characterise higher education - creating, manipulating and transmitting knowledge. Society is becoming a kind of university, without the intellectual and institutional frameworks which sustained the old institutions.

The learning organisation

Like the "knowledge based economy", the "learning organisation", is a term with multiple meanings. It has risen to prominence in the literature of management in the late 1980s, led notably by Peter Senge who presented the idea as one which could transform the management of organisations by recognising the role which learning plays within them⁵. The argument has many layers but essentially it proposes that a culture which sees problems as challenges to learn, rather than matters of blame, is likely to be more successful. From this flows the idea that the organisation must encourage all its members to engage in continuous and collaborative learning.

There are two distinct operational forms of this philosophy. The first can be seen in the government's "Investors in People" initiative, which stimulates organisations to look systematically at their skill needs and relate these to the learning of their employees. The second, and much more radical model is that adopted by a small but influential group of employers which provide "Employee Development Programmes" (EDPs), which offer support to employees to undertake systematic learning related to personal ambitions and interests. The underpinning idea is that employees with positive experiences of learning (of any kind) are more likely to be flexible and confident workers, and able to contribute to the overall productivity of the organisation.

Unlike the instrumental approach of Investors in People, which assumes that the needs and mission of the organisation can be predetermined, and tidily matched, the Employee Development approach takes a more creative approach to the learning process, in which individual and organisational needs and goals interact dynamically. Employees who develop new skills, and perhaps particularly learning skills, can not only contribute more to the firm, but they have greater personal resources to fall back on if the firm encounters a crisis, of growth or collapse. For the individual this makes industrial restructuring less threatening, and for the firm less disruptive. It also makes learning a normal part of the life of the workplace and its members.

A second, and much less debated, dimension of the "learning organisation" is the notion of an organisation which itself learns. Like individuals, organisations have experiences, reflect on, and respond to, them. With varying degrees of efficiency they remember the lessons and use them to plan their futures. The individuals within them contribute, store and process information, and like the parts of the brain, interchange information and adapt. Organisations have "personalities", which affect the way they respond to events and look to the future, and they own bodies of knowledge, which can be expanded, developed and used. Like individuals, organisations can be very poor learners, bad at absorbing and sharing incoming information, and bad at reflecting on, or remembering the lessons of their experience. One reason for this is that they fail to hear messages from all their constituent parts. Hierarchical notions of knowledge ownership and transmission serve such organisations badly, because they often prevent the organisation from learning from those closest to the customers (who are often the most junior). An efficient learning organisation is one in which all members are seen as both learners and teachers, with skills, insights and knowledge to share and to acquire.

This model is already well known in some professions, which tend to reverse the hierarchies of the manufacturing workplace. Within the professions, as within the academic world, the energies of the most senior people are concentrated on the relationship with client or learner, rather than detached into managerial roles. The “organisation” exists to support this role rather than the reverse. Such communities - professional bodies, disciplines, Departments and schools -have traditionally clustered around sets of ideas and practices, and have found ways of drawing boundaries around themselves as well as interacting with others with shared or conflicting interests. Critically, they have also been the communities which defined and owned the knowledge base of their profession or discipline.

What is happening now is that the model is extending into a much wider range of organisations. More economic activity is focused on the creation and management of knowledge, and organisations are coming to resemble the traditional academic forms, clustered around the ideas in which they trade, rather than physical facilities and manufacturing processes.

Globalisation

My third theme is globalisation, whose profound significance is only beginning to be understood. Until recently, the interaction of cultures in general was a relatively slow process, except at specific boundary points. While international debate was restricted to small elite groups in many countries it posed only modest and gradual threats to traditional cultural values. Global broadcasting has been challenging this for years, but recent developments in telecommunications, including Email and the Internet offer a far more radical test, because they are not controlled by anyone (no one “owns” or “manages” the Internet, and it cannot be censored without massive intervention by multinational firms and international government agencies working in concert).

Many academic communities have always been global. However, such communities have generally been based around a common set of cultural values, mostly deriving from northern European roots. Furthermore, the concentration on theory enabled such communities to detach themselves from those aspects of practice where cultural difference is most problematic. Thus globalisation compounds the challenge to increased interaction between theory and practice by

requiring it to face much more profound and complex areas of difference in values, and notions of knowledge.

Nations wish to trade in knowledge, but the technologies which enable them to do so also undermine their own identities. In theory these developments could lead to a continuing, but refined, plurality of cultural values within a global knowledge economy. The alternative is the gradual imposition of a "cultural monoculture" in which difference is gradually suppressed in the interests of a more efficient knowledge market. Of the two the second seems the more likely, because of the association of a set of cultural values with economic power. However, even if the outcome is inevitable, the process is unlikely to be smooth, and may be violent, and it is only of small comfort to English speaking societies that the likely language of such a monoculture is English.

In understanding this issue the small body of work on international culture in organisations may be particularly helpful. Hofstede, Trompenaars and Hampden Turner have examined organisational management in a global context, and they have identified dimensions on which cultures differ within the developed world, which are very important to our understanding of how knowledge is created and owned, as well as of why some cultures will adapt to this new world more readily. By studying the values of people carrying out similar roles in different cultures (like IBM managers across many countries), they have developed profiles of the ways in which different national cultures differ. The differences are significant within relatively similar countries (France and Germany, the UK and USA), but much more so when the European and Far Eastern cultures interact.

Trompenaars and Hampden Turner identify seven dimensions on which major capitalist cultures differ⁶. For our purposes four are particularly relevant. Individualism/communalism, where communal cultures may place more emphasis on agreement than on originality; integrating/analytical, where some cultures are much more positive about patterns of analytical thinking characteristic of European scientific method; achieved status/ascribed status, where cultures which value ascribed status will be more respectful of established knowledge, and more sympathetic to the idea that it is owned by an elite; inner/outer defines the extent to which truth is perceived to be something inside the individual or organisation, or to be found in response to

others. Each of these dimensions of difference will have profound influence on how people understand the role of knowledge and its application, some of which will seem distinctly unfamiliar to people brought up in a northern European tradition of intellectual work.

Trompenaars and Hampden Turner identified these characteristics primarily in developed, “European” capitalist cultures (together with Japan). Hofstede looks more widely and describes attempts to develop similar scales by researchers from the Far East, pointing out that social scientists from a different cultural background produce scales with different dimensions⁷. He describes the work of Bond, who worked with Chinese social scientists to produce a “Chinese Values Scale” which produced a set of scales from a “Confucian” perspective. A comparison of the two sets of scales shows considerable overlap, but two significant differences. The first is what Hofstede calls “long term orientation”, a quality prominent in the Chinese lists and absent in the Western ones, and “uncertainty avoidance” for which the reverse is true, and which correlates with the need to identify a single exclusive truth. Thus, he argues, Confucian cultures seek long term stability but are uninterested in finding “the truth”, while Western ones do the reverse. He comments:

“The three western religions belong to the same thought family; historically they grew from the same roots....All three are based on the existence of a Truth which is accessible to all true believers. All three have a Book. In the East neither Confucianism...nor any major religion is based on the assumption that there is a Truth which a human community can embrace. They offer various ways in which an individual can improve him/herself, however these do not consist in believing, but in ritual, meditation or ways of living.

The Western concern with Truth is supported by an axiom of Western logic that a statement excludes its opposite: if A is true, B, which is the opposite of A, must be false. Eastern logic does not have such an axiom. If A is true, its opposite B may also be true, and together they produce a wisdom which is superior to either A or B...Human truth is always partial.”

These conflicts are, in a sense, a demonstration in concrete form of the relativism which postmodernism focuses attention on. How, and by whom, will decisions be made about the value of knowledge, in a world where there are dramatically different notions of knowledge, truth and its place in society, and where particular value systems support different kinds of knowledge?

Lifelong learning

Lifelong learning has a long history in educational debate. Since the 1960s, one of the more important driving forces in its promotion has been the Organisation for Economic Cooperation and Development (OECD), which has argued for a lifelong perspective on education on economic grounds⁸. The argument, at its simplest, is that in a rapidly changing economy the school system is incapable of renewing the human capital of society with adequate speed. Only about 3% of the workforce enters each year from schools with new knowledge and skills, and any manufacturer who renewed his capital equipment at that rate would rapidly go out of business. The argument is that more resources should be devoted to formal learning for those who have already left the initial education system, and also that more serious recognition should be given to the learning which individuals do in the course of their everyday lives, in and out of employment. For this reason, the recognition of prior experiential learning has been a major plank of the NVQ enterprise in Britain. The arguments were prominently revived in the OECD "Jobs Study" in 1994, and have been followed up in White Papers from the European Union⁹, and the UK Government¹⁰.

In Europe since the 17th century the process of knowledge creation and transmission has been seen as linear. Put crudely, researchers observe the real world, define legitimate knowledge and formulate theory, which they then transmit to students. The knowledge is created and owned by this small community of "experts". This monopoly of validated knowledge brings high status to experts; research and theory are more highly valued than learning and practice; and abstraction is more highly valued than solutions to problems.

These relations are transformed in a world where knowledge is expanding rapidly, and is much more accessible. Far more people are involved in the processes of knowledge creation and transmission: knowledge becomes more accessible but less manageable, while theory is more

frequently tested against practical problems. This will present a challenge to all cultures, but especially to those which have traditionally given a high status to theoretical knowledge, and those which have drawn sharp dividing lines between vocational and academic knowledge, since skills and knowledge will increasingly flow across such boundaries.

Furthermore, in a knowledge based economy and society learning is not something "added on" to stable social and economic processes: it changes those processes, and is one of the ways in which a society reflects on and redefines itself. Learners are engaged in the processes about which they are learning, they take their learning out and try it in the world, testing that learning against concrete experience. They will also bring their own problems to that learning, seeking solutions to problems whose parameters are set not by academics but by their own lives. As the long literature of working class adult education demonstrates, this can produce profound conflicts of values even within relatively homogenous cultures.

4. What is to be done?

The answer to Warnock's question, "is there a crisis?" is yes. The traditional near monopoly of the university over ownership and transmission of established knowledge, and validation of new knowledge is under threat. As knowledge becomes more economically significant, and more immediately marketable, these roles become more contested. A growing number of other agencies are creating new knowledge, and seeking to become learning communities of the same kind. The example of government's intervention to create "Lead Bodies" which define competence, and hence legitimate knowledge, in specific fields is only one example. At the same time, globalisation is challenging its particular notions of value and knowledge, and lifelong learning is forcing it to ask questions about relevance.

I would suggest that the answer relates to two key themes, deeply embedded historically in the European idea of the university, but significantly weakened in recent years. They are the notions of academic community, and of personal knowledge.

The notion of academic community reflects the view that knowledge is socially constructed, and is thus the product of groups of people talking to each other, testing and refining their

understanding of reality and truth. The university was once the most convenient way of doing this, but the pressures which I have examined above suggest that this model is no longer adequate, because too much new knowledge is being created outside the walls, and the knowledge itself is too dynamic. When most knowledge was conceived of as relatively static, a matter of laborious discovery of eternal truths or natural laws, it made sense to create special spaces where the work could be done. Once discovered, it could then be transmitted to the world outside for application, and since it did not change rapidly, it did not need a two way relationship with that world. The world outside the walls was a place to be examined, theorised about and informed of the conclusions, it was not an active partner in the process. The inadequacy of that model has become increasingly clear in recent years, when the processes which used to be exclusive to the university are also taking place outside, and that world has as much claim to membership of the community as those within.

The implications of lifelong learning and a knowledge based society are that we must redefine the nature of the academic community, as one which embraces all of Reich's symbolic analysts, all engaged throughout our lives (as academics and a few researchers outside always have been) in a lifelong pursuit of knowledge. We have yet to understand what this means for the university as an institution

In doing this, however, we must recognise the challenge of globalisation. The rules of the European academic community have been built on the enlightenment project. Even in the "softest" fields, where physical evidence is hardest to find, there remains a notion of a truth to be pursued, even if it can only be established by tentative agreement among "experts". The implication of the new academic community is that that community will be much larger, and perhaps less likely to agree, but the implication of globalisation may be that there are whole cultures which do not accept the fundamental principles. In the attempt to avoid this dilemma it is tempting to shift focus to instrumental values - the test of "does it work" seems easier to transfer across cultures than "is it true". However, at any level beyond the trivial, this notion of "working" remains problematic, as has been demonstrated by the attempts of government through NCVQ to produce clear and objective definitions of competence. This might seem to argue for a larger place within the new community for the examination of issues of value, recognising a diversity of systems and truths.

This leads me to my second theme, of personal knowledge. In the classical model, bodies of knowledge exist, academic disciplines seek to understand them, and individuals seek to learn as much as possible of them. The individual is apprenticed to the discipline, which itself rests on a body of natural or social law, not yet fully discovered. The implications of the expansion and increased volatility of many forms of knowledge, the development of new forms, and new ways of validating them, and of the new, much larger, learning community all suggest that this vision is no longer adequate. Bodies of knowledge are inevitably personal, and individuals will assemble what is relevant to their personal situation, developing different parts as their circumstances change. This matches the models of new individualised workforce, of “portfolio careers” and the growth of symbolic analysts, whose economic wealth rests in their ability to build on unique bodies of knowledge to tailor solutions to individual problems.

It is also a vision with good historical precedent in the classical tutorial model, where the continuing dialogue between tutor and student guides the learner through a process of reflection and negotiation, building on that student’s individual knowledge, rather than imposing a predetermined body of knowledge. It also, of course, underlies the apprenticeship tradition, and the models of professional education in the creative arts, to which it is closely related, where the apprentice moves through a process whose aim is to build on individual talent and acquired knowledge with the assistance of more experienced masters, in order to become a master craftsman, with unique style and skills recognised by his peers. The aim is the unique talent, based on knowledge, skill and intellectual rigour.

To conclude, then, the crisis exists, rooted in the loss of monopoly. However, the values on which the notion of the university rests, of the communal search for knowledge, by students and teachers together, and the development of individual knowledge and skill remain critical to a developed society. The difference is that the community is becoming much larger and more diffuse and the creation and ownership of knowledge is becoming more politically and economically contested. The challenge for the University is to redefine itself within this new and larger frame.

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