A new twist in the development of the knowledge economy

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2016-04-20


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Introduction: the Changing Relationship Between Universities and Knowledge

One of the difficulties in getting to grips with the reforms currently underway in universities across Europe, not to mention in many other parts of the world, is a disagreement about what these reforms are for. Delanty (2001), one of the more optimistic commentators, has suggested that the purpose of the knowledge that universities generate has never been straightforward, as it changes in line with wider conditions. In his view, universities now have a vital role to play in the current ‘democratization’ of knowledge, in this period during which an overwhelming quantity of information is being generated and made available on a daily basis to everyone via the Internet (Delanty 2001: 155). For him, universities should help to make sense of this endless flow of data; and the process of making sense of it should not be simply for creating economic opportunities, but also for encouraging democracy and cosmopolitanism, for drawing out the liberating potential of this new widespread availability of all these data.

1 An original version of this paper was presented to a symposium organized by the Department of Social Research at the University of Helsinki on 26th May 2015. I am grateful to Keijo Rahkonen for inviting me to give the paper. It has been considerably changed since that presentation; any errors are my own.
At the opposite, and most negative end of opinions on the reforms, Bill Readings has suggested that universities in the USA have been reduced from the Humboldtian ideal of a place in which a community of scholars generate new knowledge into nothing but crudely economic instrumentalism (Readings 1996). And it is not only the type of knowledge being generated within that economistic model that is the problem; others writing at the same time have argued that US universities were becoming ‘diploma mills,’ designed to make a rich profit from automating and standardising the process of generating academic degrees, most especially through computing and the internet (Noble 1998a; 1998b). An important part of that standardisation would involve making the delivery of the teaching cheaper by de-professionalising the academic staff. Once a degree course had been designed, universities could then package it as an online course that could be delivered by a teaching assistant rather than by a professor. This would be a bit like replacing a skilled craftsman with a machine run by an operator who is simply taught how to use the machine, not how to design what the machine produces. In short, Noble presents us with something akin to a Fordist nightmare of higher education.

Wright and Rabo suggest that a process of de-professionalization has also been underway in Europe, even though European countries have a much stronger tradition of public universities supported by the state, and thus a much shorter and more contested period of being influenced by profit motives (Wright and Rabo 2010). As an aside, it is worth noting that in that context of publicly funded universities in Europe, the ideals of improving efficiency, raising standards and cutting costs have been far more acceptable justifications for implementing university reform than any arguments involving profitability or commercialisation. Indeed, most academics working in European universities have never experienced a time which has not involved a period of cuts and economizing, which coincidentally always seem to accompany major restructuring of their university’s activities and objectives.

Nevertheless, and whatever the justification for delivering the changes (profit motive, some form of business process re-engineering,
or cost cutting), Wright and Rabo’s introduction to a special issue of *Social Anthropology* which focuses on university reform around the world shows that while there are significant differences in how the changes are implemented, there are also some common threads in the rhetoric used to describe what all of these changes are supposed to achieve. For Wright and Rabo, these rhetorical similarities can be traced back to the phrase ‘knowledge economy.’ This phrase became popular in the mid-1980s in the Anglophone world at least, but it began to significantly affect university policies in Europe after 1998, the year when the OECD published a report on the issue (OECD 1998). That report suggested that the ‘knowledge economy’ would divide the world into ‘head’ countries (those that would produce and deliver the knowledge) and ‘hands’ countries (those that extract raw materials and produce material goods). In order for countries to maintain their ‘head’ status, they would have to develop a workforce with a capacity to constantly and flexibly innovate and change. These new economic conditions (globalization, neoliberalized capital, the digital revolution, etc) meant, or so it was predicted, that anything learned at university would be out of date by the time the student finished their studies, so new forms of training were needed. Wright and Rabo argue that in response to the OECD’s call, disciplinary expertise in the European universities has been steadily eroded and replaced with the pursuit of generic ‘soft, transferable skills’ (Wright and Rabo 2010: 3). The logic behind this policy is that in the ‘knowledge economy’ it is better for students to learn generic techniques and skills unattached to any particular disciplinary specialism than it is to learn something about, for example, Medieval history or philology.

That last argument, whose echoes are still present in many contemporary European government state policies on reforming higher education (including in Finland) has been strongly and convincingly critiqued. Two examples should be sufficient to demonstrate the point here. The first is Alberto Corsín Jiménez’s ethnographic study of the restructuring of the social sciences and humanities (SSH) within Spain’s National Research Council (Corsín Jiménez 2008). The restructuring was officially intended to bring Spain’s SSH into line with
the requirements of the new ‘knowledge economy.’ This involved many procedures that will be familiar to academics across Europe: a move to a newly redesigned building, which invariably has a fraction of the book shelving and storage space than was available in the previous building; a series of new targets to be achieved that are regularly audited; and a reorganization of the administration and structure so that there would be an emphasis on transferable skills and interdisciplinarity. During his fieldwork, Corsín noticed a strong disconnection between the requirements of the new policy and the experiences of the humanities academics, particularly philologists, with whom he was working. The absence of access to their books meant they felt they were being denied the tools of their trade; and the requirements of the new targets were so different from what they understood scholarship to be, and so beyond the resources that they had available to them, that they felt there was a complete lack of proportion between their own reality and what was expected of them.

In exploring what might account for the sense of disproportion between the academics’ understanding of their job and the expectations of the new policies, Corsín outlines two different understandings of what ‘knowledge’ might mean in the knowledge economy. The first he calls a ‘relational economy of knowledge’, which is the one he most closely identified with the new ‘knowledge economy’ policies. In this view of knowledge, the more knowledge that is made freely available, the greater will be the new uses to which that knowledge is put, and thus the amount of knowledge that exists will naturally incrementally grow (Corsín Jiménez: 232). All one needs to know is techniques for collecting and processing the data. To me, Corsín’s description is reminiscent of the idea of Adam Smith’s ‘invisible hand’ of the market: the sheer quantity of material available, and the sheer number of people engaging in transactions with that material, will somehow generate a good (proportionate) outcome. Importantly, in this model, the invisible hand (the collective, statistical outcome of millions of transactions) is the agent causing the overall effect of the market’s activities: it is not the individuals who buy and sell (or who do academic work), but the statistical effect of their collective actions – i.e., the market.
In contrast, an alternative model of knowledge is what Corsín refers to as an ‘engineer-based paradigm of knowledge’. In this approach, knowledge can only become genuinely innovative (let alone useful) if it is put into meaningful relation with a great deal of other knowledge by people who actually know what they are doing. Here, the significance of knowledge, in Corsín’s words, “is the engineers’ capacity to put knowledge to work rather than the simple availability of knowledge” (Corsín Jiménez 2008: 232). This second model relies on the existence of skilled people with particular knowledge built up over the years in order to make knowledge into something meaningful and useful. In this model, it is particular human beings who make relations between one piece of information and another, and they achieve that through judgement based on their expertise. This is in contrast to linking data endlessly using some kind of algorithm, with the assumption that eventually, something useful may come of it. Incidentally, the widespread use of algorithms in stock exchange software, so that computers can automate buying or selling decisions in microseconds based on the stock exchange trends around the world from second to second has sometimes had spectacularly catastrophic results (Mackenzie 2011). This is a demonstration of the value of the warning made since the 1960s by computer software engineers about computing: all digital data follows the GIGO principle (Garbage In, Garbage Out). It also suggests that knowledge is not the same as information, and it is not the same as widgets; acquiring knowledge involves something other, and more than, organizing information into complex patterns: it also involves ascribing meaning and value.

The crucial difference between the two models of knowledge (the relational and engineered form of knowledge generation) are expertise and time. The first model produces new knowledge simply by the sheer quantity of knowledge and the velocity at which it can be circulated and processed. In that model, there is no concept of what kind of person receives the knowledge, what kind of knowledge it might be, nor any interest in what a person might do with it: it is a ‘big data’ approach towards knowledge. The second model sees the generation of new knowledge emerging from people who have been through a lengthy
apprenticeship in order to build up understanding within a given field of learning, and who then enact their expertise in drawing together different threads of information and bodies of knowledge to create fresh relations between them that are meaningful and valuable within that field.

Corsín illustrates this kind of crafting of expertise through the new knowledge created by the notes that the Spanish philologists he interviewed had written into the margins of their thousands of books. The notes create a complex web of relations between the books, and the knowledge that comes from this is built out of years of particular relations created by the scholar between one book and another, a deep knowledge built over the years with care and attention. This kind of knowledge cannot be replicated, or replaced, by the electronic availability of everything (the Google Books model, in which all books should be made available online). Corsín concludes that the academics’ understanding of the requirements of this form of craftsmanship is what led to the sense of loss and disproportion in the changes introduced in Spain. It was not so much the new technologies as such, but the model of knowledge that informed the changes to the research environment of the social sciences and humanities in Spain that was at issue. Indeed, both Corsín and Wright and Rabo note that drawing on a different model of knowledge, the new technologies offer enormous potential for universities; their objection is not against change, but against the implementation of an understanding of knowledge that runs counter to what they believe is needed in order to make sensible use of the industrial scale of data production that has been made possible with digital technologies.

This approach suggests that the skill and understanding gained through disciplinary expertise remains an essential part of what universities provide, even in this era of a highly flexible world in which people need to be able to constantly and creatively respond to ever-changing conditions. Knowledge is not generated simply by having a generic technique or method of doing something, modeled perhaps on the algorithm that drives the Google search engine, the idea that through sheer big data processing power, you will always find what you
need; it also requires a deep learning, what Bourdieu famously called a ‘feel for the game’ (Bourdieu 1995 (1990)). And as Wright and Rabo note, this need for high levels of sheer craftsmanship – knowledge built up over many years – is even recognized in many of the reforms made in the academy. While there is an increasing push for generic transferable skills and a gradual removal of organizational structures that support distinct disciplines, at the same time, auditing of academic research requires academic staff to have highly specialized expertise in particular fields in order to score well (Wright and Rabo 2010: 3).

Moreover, as McSherry pointed out some years ago, the drive towards making the knowledge that universities generate directly profitable (even in Europe) has led to some radical developments in intellectual property rights law: the particular new knowledge created by researchers is increasingly subjected to patent and property legislation (McSherry 2001). Academics are expected to simultaneously belong to no disciplinary units in their universities and teach generic transferable skills while also being expected to excel in particular fields and win international prizes for their achievements in those fields.

This question of knowledge as property raises an additional issue about the reforms underway in universities, and how that might alter the way in which knowledge is generated in them. Marilyn Strathern, while considering the question of who ‘owns’ academic knowledge, outlines the difference between the logic by which scientific knowledge is generated and the logic of patent and copyright law. In her words:

Scientists have used the term ‘gift exchange’ for a prestige-reward system through which scientists both ensure the circulation of information, and gain recognition for doing so. The individual supposedly shares findings with the scientific community at large, so that knowledge taken out of a public domain is returned to it. [...] what is being called knowledge in this context is defined by its belonging to ... an academic ‘community’ – a community that is not at all the same as the university. (Strathern 2004: 59)

In this comment, Strathern is noting two things. First, that scientists constantly circulate what they know amongst a community of specialists. The key difference between that and the ‘big data’ model
of free exchange of information is the need for the existence of the community of specialists: what counts as knowledge is collectively generated through a constant process of sharing information between particular experts, which generates relations between them and between them and the knowledge. It is a form of the notes in the margins of the philologists’ books in Spain. And Strathern’s second point is that this method of generating knowledge also means that the knowledge is collectively owned by that community of scientists. They are all part of making it. Strathern points out that the logic of intellectual property rights (ownership of knowledge), whether in terms of patent or copyright, “is actually antithetical to this kind of accreditation” (Strathern 2004: 59). It is antithetical because property rights over knowledge, which gives just one individual or entity the exclusive rights over a particular finding, denies the existence of the dense web of relations built up over the years between the community of scientists which makes it possible for the knowledge to be generated in the first place.

The implications of Corsín’s argument, when combined with these additional points, is that disciplinary expertise, and the community of scholars that is required to create it, is still very much needed in order for scientific knowledge to be generated, and therefore disciplines are still very much needed. However, this argument, which bears a striking resemblance to the Humboldt model of scholarship (and for a reason: it is more or less the same thing), has often been dismissed as being ‘antiquarian’, as resisting change for the sake of it, of sticking to ‘old fashioned’ techniques of generating knowledge that are not suitable to the twenty-first century. So it is important to note that neither Corsín nor many others who argue in favour of this crafted/engineered model of knowledge are against change. On the contrary, the argument is that in order to be truly innovative and creative, in order to genuinely provide the means to flexibly and quickly respond to ever-changing conditions, a commitment to much higher levels of expertise is required than the reverse. New technologies might indeed assist with that aim; but only if the logic and ideals guiding their use do not contradict such an aim.
Another critique against the idea of maintaining disciplinary expertise is that disciplines create rigid boundaries between themselves and other disciplines, and between themselves and the wider world. The argument goes that in the current fast-changing conditions, such boundaries hold back innovation and need to be removed. Yet both McSherry (2001) and Strathern (2004), amongst a number of other scholars have demonstrated that this is a rather limited understanding of both disciplines and the way in which communities of scientists develop and transform over time. Strathern uses the analogy of kinship, in which one scholarly community can, through collaborations with another one, give birth to a third, which can then create alliances with different ones, which then give birth to yet more combinations (Strathern 2004: 45-6). There is nothing in the logic of specialist scholarly communities which suggests that people must stay within their disciplinary boundaries: if their understanding is enriched by collaborating with others, that is often exactly what will happen.

This is where my second example of how the fostering of communities of specialist expertise should be a key part of what universities are for: Tuija Pulkkinen’s recent paper on the inherent trans-disciplinarity of gender studies (Pulkkinen 2015). That example shows that there is no incompatibility between innovative collaborations between disciplines and the need for training in scholarship as an artisanal craft. In the course of this paper, Pulkkinen outlines Derrida’s reasons for founding the multi-disciplinary Collège international de philosophie in Paris. She describes how Derrida’s key aim in setting up the Collège was to institutionally and structurally bring philosophy together with other disciplines so that they could creatively intersect. Pulkkinen concludes that “this idea of intersection (in this case the intersection of philosophy with other disciplines) and transdisciplinarity does not put the discipline of philosophy in doubt, it does not suggest that we need to question the idea of ‘artisanal’ forms of disciplinary institutions in order for this new transdisciplinarity to be realized.” (Pulkkinen 2015: 196-7). Instead, it involves ensuring that space is provided for the development of a deep engagement with a particular body of
knowledge, so that one becomes an artisan, which can then be put to work in collaboration with other disciplines.

In sum, this argument about what universities are for suggests that they are there to provide the scholarly environment for a detailed, lengthy, apprenticeship into specialist knowledge and the exercise of people’s minds. That not only involves the learning of techniques and skills (though inevitably that is a part of it); it also involves developing a deep and enduring knowledge of specific fields and disciplines, of circulating knowledge within an enduring community of scholars, all of which can then be drawn upon in other contexts in order to flexibly and intelligently collaborate with different disciplines and even outside the academic sector altogether. Along with many other scholars, I find this argument considerably more compelling than the idea that knowledge creates itself through some kind of invisible hand mechanism, or that knowledge is created by removing all the differences between disciplines altogether.

The UK’s Research Assessment Exercises and Research Excellence Frameworks: Proving the Case

The reason I find the argument so compelling is not only the strength of the points made in this literature; it is also, and perhaps a little ironically, my experience over the last few years with the UK’s rigorous (and some would say relentless) auditing of the quality of British universities’ research. These audits, carried out every few years by the UK’s Higher Education Funding Council of England (HEFCE), examine, in detail, the quality of research carried out within all disciplines in all universities in the UK. The outcome of the audits determines the level of ‘quality related’ (QR) government funding that each discipline receives for the following five years until the next audit.

After the first two relatively ‘light touch’ audits carried out in 1986 and 1989, much more detailed and intensive audits, called Research Assessment Exercises (RAE) were held in 1992, 1996, 2001 and 2008.²

² http://www.rae.ac.uk/aboutus/history.asp
The most recent audit, carried out in 2014, was renamed the Research Excellence Framework (REF). I was an external assessor for RAE 2001, in which I was asked to assess the research of particular researchers; in 2008, I was an actual member of the RAE panel that assessed anthropology for the whole of the UK; and in 2014, I was a member of the REF panel that assessed anthropology and development studies for the whole of the UK. These experiences, and particularly through the RAE 2008 and REF 2014 panel memberships, in which I was exposed to a detailed analysis of the structure and research activities of every anthropology department in the UK, have persuaded me that what universities do best (irrespective of what they may be for, as such), is to provide the strongest possible collective environment of scholars in which to develop specialist expertise that can then be combined with, brought into relation with, translated into or deployed in a variety of ways, and often in unexpected ways. The RAE and REF audits have been central parts of the UK government’s process of changing the practices and structure of its universities since the mid-1980s. As exercises, they provide a powerful window into the thinking and workings of how one country’s government is realigning the relationship between the state and higher education. Yet my experience has taught me that however differently the criteria are defined from one audit to the next, the results repeatedly showed that it was where rigorous specialisation in particular disciplines was structurally supported by the university, combined with the existence of open channels of communication and collaboration between disciplines, that generated the most consistently high results in all of these audits of research quality.

Given that many believe the real underlying purpose of the RAE and REF audits was to engineer a fundamental change in British universities along the lines that I have been discussing above (and see also Brennan and Shah 2000), it may seem strange that this has been the outcome: a reinforcement of the basic ideals set out by Humboldt rather than their breakdown. Yet there were also major structural and even intellectual changes in the workings of British universities during that period, changes which were indeed brought about in part because of the audits, as Shore, amongst many others, have commented
(Shore 2008). This repeats the paradox discussed above, in which universities are increasingly discouraging disciplinary distinctiveness while requiring their staff to become increasingly internationally recognised for their disciplinary expertise. In this case, the paradox is that while audit systems are increasingly rewarding managerialism and a centralisation of power over academic freedom in universities, and encouraging strategically-oriented research aimed at winning the audit game (Power 1997), in fact the results have highlighted once more that provision of the resources for the maintenance and autonomy communities of scholars willing to collaborate and share knowledge, who work collectively to generate new ideas, and who do that predominantly because of a combination of a commitment to scholarship and the sheer joy in carrying out research, is the kind of environment that generates the best results. Although the RAE audits drew a great deal of fire from the academic press and individual scholars, there was one aspect of these panels that remained unchanged from the normal process of peer review that all scholarship undergoes: the people carrying out the assessment of the quality of the research was a panel of scholars from the same field. The assessment criteria were somewhat different (and controversially so at times); and the uses to which the results were put by university managers was objectionable to many; but the basic process of assessing research quality was done in the same way as in the normal way of establishing the quality of research. That is why I was on this panel: I was chosen as being one of my colleagues’ peers.

The Impact of Impact

That process of auditing through peer review remained unchanged until REF 2014 was introduced, which brings me to the most recent and most radical iteration of these UK audits. Although there was still a panel of academic peers, there was a new element introduced in REF2014: a measure intended to evaluate the ‘Impact’ of academic research outside of the academic context. And that new criterion came
with the appointment of panel members who were non-academic assessors of the Impact of academic work on non-academic life.

For the purposes of the audit, Impact was defined as “an effect on, change or benefit to, the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.” And Impacts were to be assessed by their ‘reach and significance’ “regardless of the geographic location in which they occurred, whether locally, regionally, nationally or internationally” (ibid, paragraph 144, p.27). Needless to say, there were endless debates on what the precise meaning of ‘reach and significance’ might be, and how such ‘reach and significance’ might be demonstrated. In simple terms, ‘reach’ referred to how widespread the effect was – how many people, or how many places, were affected by it; and ‘significance’ referred to the importance of the impact: if it changed people’s lives, it was of very considerable significance; if it only had a minor effect on something, then it was of minor significance. Many academics as well as university managers expressed particular consternation about how to deal with Impact because it was a criterion that had not been in existence when the research was carried out, and nobody predicted that their research may be assessed according to such criteria. Yet, although nobody was quite sure how to tackle this new form of audit, there was a great deal of attention paid to it, as Impact accounted for 20% of the entire grade awarded to each discipline in each university (or Unit of Assessment, as disciplines were called in REF-speak). It was originally suggested that the percentage should be 25%, but after sustained and heavy objections from the universities, this was reduced to 20%. Nevertheless, that percentage had the potential to completely change the results of any given university’s anthropology department.

The addition of Impact as a criterion for measuring the quality of research was not only controversial for these reasons; it was also because, for the first time in the history of universities in the UK, research carried out by academics would be assessed directly by people who were not a part of their scholarly community, but instead from the non-academic sector.

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That crossed an extremely strong intellectual and moral line in the UK, and the level of discontent it created amongst academic staff there still reverberates today. The intellectual line it crossed was the Humboldtian conviction that the key criterion for testing the quality of research is the judgement of one’s peers, which establishes both the value of the research, and its significance. The Impact criterion was suggesting that there should, in addition, be a completely different measure of the value and significance of the research, which is the effects it had somewhere other than within the field of the community of scholars who produced it. And the moral line it crossed was the principle that academic scholars should have an absolute freedom to choose what they wish to research, within the condition that it should make sense to the collectivity of scholars who are working in the same field; the criterion of non-academic relevance should not enter into the matter. Yet now, disciplines were being asked to select two or three ‘case studies’ of impact from research that their staff had done within the last few years, which should present the impact, with evidence.

Each case study included a written description; the itemisation of the research that was done which led to the impact (called the ‘underpinning research’); evidence of reference to the research by non-academic users, and also peer-reviewed scholarly publications showing the academic quality of the research on scholarly grounds; details of the ‘significance and reach’ of the impact; and evidence of sources that could corroborate the impact.

During 2012 and 2013, when the universities in the UK were preparing their submissions to the REF panels, there were workshops, training days, conferences, trial runs and regular mutual consultations with colleagues about what ‘counts’ and what does not ‘count’ as Impact. And although enormous amounts of work went into producing all this data, in the end, the main description of the impact (called the Impact Template) was just three pages long, and each case study was less than four pages long, including all the references. The level of effort, expertise, and innovation that went into creating these documents was highly impressive, and easily on a par with the skills used to carry out standard research. Whatever else it proved, it demonstrated,
once again, the powerful capacity of the collective efforts of an expert scholarly community to address new problems presented to it. Groups of scholars were able to reorganize their knowledge into the newly required form.

Amongst the titles of the resulting case studies of Impact that were submitted to the Anthropology and Development Studies panel were: Improving Public Understanding of the Effects of Aircraft Noise (University of Manchester); The Use of Expert Evidence in Asylum Procedures (the University of Edinburgh); Genocide prevention In the Great Lakes Region of Africa (University of Sussex); The Gashaka Primate Project: Conserving the world’s rarest chimpanzee (University College London); Refugee Integration Programme (Queen Margaret Edinburgh), and; Value, Debt, Direct Action and Participatory Democracy (Goldsmiths College London).

So what was the impact of Impact? I have no access to systematic research results as yet. From my own experience of this one social science panel, the reverberations are still being felt, and few of them are positive. The most immediate and worst effect has been on those departments which miscalculated how to tell their Impact stories, and as a result their overall mark was pulled down considerably lower than it would have been without the impact criterion. As the REF audit had set up the element of competition between universities, the usual sharing of information across the discipline (which is normally highly efficient in anthropology, as it is a small discipline) was severely curtailed, and that inevitably resulted in some people interpreting how to play the game differently from others.

In addition, the sense of disproportion that Corsín mentions for the academics in Spain was powerfully and literally felt in the assessment of Impact. The assessment of research publications involved assessing four publications (normally) for each member of staff in each university department assessed; for a department with 15 staff, that would amount to 60 publications (books and articles) and thousands of pages of text, representing many years of research. Yet for Impact, the same

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4 All the REF 2014 results, and the full descriptions of the Impact templates and case studies can be found at http://results.ref.ac.uk/Results, last accessed 20.10.2015.
department would submit either two or three case studies of four pages each, plus a three-page Impact template. For those eleven or thirteen pages, the department would receive 20% of their total mark. For most people submitting their applications to the REF panel, it felt completely out of proportion. The reaction of many university managements and administrations, both to having to carry out the Impact task and in dealing with the results, has also, by all accounts, been experienced as highly disproportionate by the academic staff.

At the same time, the impact of Impact brought some unexpected positive results as well. The first was the realisation by many that their research, which they had designed and carried out using the usual standards of intellectual curiosity, and which had been judged in the usual way by a community of their peers, could be rethought and brought into a different kind of relationship with other forms of knowledge outside the academy. It was a demonstration of how that community of scholars which is more usually there to deepen and broaden disciplinary expertise and maintain academic standards can extraordinarily easily be put to work on another task. To me, this was an admittedly unexpected and quite surprising outcome of participating as a panel member in the REF 2014 assessments of Impact. It actively demonstrated to me the point that Strathern made in *Commons and Borderlands: working papers on interdisciplinarity, accountability and the flow of knowledge* (Strathern 2004): that having a deep understanding of a discipline and a dense web of relations with both a body of knowledge and one’s peers provides the most powerful potential for meaningful communication, collaboration and the deployment of artisanal skills in new fields, and even across sectors where that is needed.

These are academics who are committed to their disciplines and are open to making their expertise and knowledge available to others; who are committed to their books, to rigorous scholarship and to insisting on the right to pursue their intellectual curiosity simply because they want to know the answer and for no other reason. These scholars are not old-fashioned people who have failed to understand the needs of the knowledge economy: they are the knowledge economy. And they are what universities are for.
References


