Re-assembling the relevance argument in organisational and management research: Mode 2 and Actor Network Theory.

David Knights* and Harry Scarbrough**

* Keele University
** Warwick University

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Abstract

Within organization and management studies, the debate on the relevance of research and teaching emanating from business and management schools in higher education has been dominated by mode 2 discourses (Gibbons et al., 1994; Nowotny et al., 2001; British Journal of Management, 2001). Mode 2 research is seen to differ from traditional approaches in generating knowledge that is more closely linked to application and practice, and may actually be co-produced with practitioners. By drawing on self-reflective and theoretical examinations of the authors’ own personal experience of establishing and developing two different industry-academic consortia, we seek to demonstrate how Mode 2 provides some but not sufficient insights into such collaborations. Although epistemologically and ontologically at some distance from one another, we suggest that actor network theory can complement or offers an alternative analysis in providing an understanding of these consortia. In sum, this paper engages in a re-assembling of the relevance argument by introducing actor network theory, suggesting that it may be seen either as complementary, or as an alternative, to Mode 2 for understanding relationships between management academics and management practice.
Introduction

Of recent time, debates about the failure of management research to be relevant to its target audience, whether the student or the business community more generally (Pfeffer and Fong, 2002; 2004; Hambrick, 1994; Beer, 2001; Starkey and Madan 2001; Mintzberg, 2004; Bennis and O’Toole, 2005) have reached almost crisis proportions resembling something like a ‘moral panic’. Much of the crisis talk is driven by fears of business schools losing the privileges of excess demand and premium fees that might diminish if the value of their education is challenged. While the critics do offer some positive suggestions for transforming business school research and education into a more user friendly and practical form, much of the debate remains rhetorical.

There are, however, two candidates that stretch well beyond the rhetoric to offer significant change in social science research that involves breaking conventional epistemological, ontological, methodological and disciplinary boundaries. The first assumes the somewhat unimaginative nomenclature of Mode 2 research (Gibbons et al., 1994; Nowotny et al., 2001) but it is intent on challenging both disciplinary and theory/practice boundaries by encouraging the co-production of knowledge through multi-disciplinary and academic/practitioner teams of researchers focusing on a shared problem. The virtue of the Mode 2 perspective is to question the value of existing conceptions of knowledge production in the context of greater reflexivity and the declining legitimacy of established institutions. The characterization of Mode 1 and Mode 2 is valuable precisely because it challenges conventional views of knowledge production by respecting what it terms ‘knowledge produced in the context of application’ as much as knowledge produced through disciplinary means. Unfortunately, the dichotomous thinking of Mode 1 and Mode 2, while good for generating debate, has meant that much of that debate has focussed not on the implications of this novel view of knowledge production, but on the normative question of whether Mode 2 is in some sense ‘better’ than Mode 1 (Starkey & Madan, 2001) or vice versa, or even whether they are as distinct as is portrayed (Grey, 2001). This question – sometimes presented in terms of a supposed ‘relevance gap’ in academic research – has been the engine of much of the existing debate (see the special issue of the British Journal of Management, 2001; Beer, 2001; Pfeffer and Fong, 2002; 2004; Van De Ven & Johnson, 2006).

The second has been assigned the rather more cryptic label of actor network theory (ANT), which it has recently both been inclined to reject because these terms contradict the very purpose of boundary breakdown that the approach embraces (Latour, 1997) only to be reinstated (Latour, 2005) simply because the term has become common parlance and to
rename what is familiar can only lead to ever more cryptic miscommunications. As an approach, ANT has ontological and epistemological misgivings with modernist separations of nature (facts), society (power) and their deconstructions (discourse) as separate and irreconcilable entities (Latour, 1993: 6). The material and the social are never independent since they mutually enrol and mobilise one another in complex networks of ideas, events, identities and practices. Indeed there is actually not even a relation between human and non-human entities since that is precisely the division that is denied (Latour, 2005). The paper will examine both these perspectives since they each contribute to an alternative to those ontologies that, in the words of the Call, assume academic knowledge to precede practical action.

Interestingly, Mode 2 has been both an impetus and resource for the debate on relevance in management research whereas, though clearly relevant for discussing boundary breaches or infringements, actor network theory (ANT) has so far had only marginal influence in management (c.f. Sidle and Warzynski, 2003; Knights, 2007). In this paper, we seek to reassemble the relevance argument by exploring the contributions, which both these theoretical perspectives can make to our understanding of the interplay between academic and practitioner knowledge. In this respect, we begin by highlighting the way in which the Mode 2 perspective has actually evolved from the initial more normative formulation that inspired much of the debate in the management and organization studies arena. The most recent version of the Mode 2 thesis offers a more sophisticated analysis of knowledge production by locating it within the wider co-evolution of science and society. At the same time, we note that the value of the ANT perspective is to reframe features of the current scene that have caused much of the hand-wringing in current debates – the question of relevance, the increasing importance of consultants, and the possible marginalization of academics – not as a moral challenge or imperative but rather as elements of a seamless web in which practitioners, intermediaries and academic researchers but also many non-human actors (the ‘relevance’ debate, league tables and other forms of competition, research assessments, corporate and brand image, career, legislation and regulation) are all implicated.. To illustrate our arguments, we draw on our own full participant observation of the development and operation of two industry-academic consortia. These consortia have been the sites for many of the tensions and challenges described in the ‘relevance’ debate, and thus provide some illumination on the way in which these issues are resolved in practice.

The paper begins by discussing the distinctive character of Mode 2 research as contrasted with traditional approaches that are described as Mode 1. Uppermost is its attempt to transcend disciplinary and academic-industry boundaries through research that is both
transdisciplinary and linked to the context of application. In the second section, we provide a similar discussion of actor network theory indicating how it is even more radical in rejecting taken for granted boundaries between human and non-human agents and between theory and practice. The third section draws on fully participant observation\(^2\) of our own experiences of developing and managing industry-academic collaborations. It documents the trials and tribulations and the positive and negative conditions and consequences of pursuing such collaborations. We subject these findings in the fourth section to analysis, drawing on our discussion of Mode 2 and actor network theory. Finally, we draw out the implications of this research in the Summary and Conclusion.

**Modes of knowledge production**

Much of the debate on the interaction between academic research and business has been framed by an influential analysis that describes the broad relationship between science and society in terms of shifting ‘modes of knowledge production’. This analysis was originally presented in ‘The new production of knowledge’ in 1994, with a sequel, developing the original argument ‘Re-thinking science: Knowledge and the public in an age of uncertainty’ being published in 2001. (Gibbons et al., 1994; Nowotny, Scott, & Gibbons, 2001). In their original account of societal trends, these authors argued that advanced societies are witnessing a profound shift from what they term 'Mode 1' to 'Mode 2' knowledge production. Mode 1 they describe as 'a form of knowledge production - a complex of ideas, values, norms - that has grown up to control the diffusion of the Newtonian model to more and more fields of enquiry and ensure its compliance with what is considered sound scientific practice.' (p. 2). They argue that important societal trends, including the massification of education and research, the impact of IT and the expansion in the market for knowledge, are displacing Mode 1 as the dominant mode of knowledge production. Rather, the dominance is shifting towards Mode 2, which, as outlined in Table 1 below, they characterise as involving radically different organizational contexts, epistemic bases, and forms of governance.
### Table 1: Modes of knowledge production

<table>
<thead>
<tr>
<th>Features of knowledge production</th>
<th>MODE 1</th>
<th>MODE 2</th>
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<tbody>
<tr>
<td><strong>Focus of knowledge</strong></td>
<td>Problems defined by academic community</td>
<td>Knowledge produced in context of application</td>
</tr>
<tr>
<td><strong>Disciplinarity</strong></td>
<td>Disciplinary knowledge</td>
<td>Transdisciplinary knowledge</td>
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<tr>
<td><strong>Form of knowledge</strong></td>
<td>Homogeneity</td>
<td>Heterogeneity</td>
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<tr>
<td><strong>Governance</strong></td>
<td>Hierarchical and stable organizations</td>
<td>Heterarchical and transient organizations</td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>Quality control by the 'invisible college'</td>
<td>Socially accountable and reflexive</td>
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The implications of this shift are profound. Gibbons et al. (1994) claim that ‘in mode 1 knowledge was accumulated through the professionalisation of specialisation largely institutionalised in the universities....Mode 2 knowledge is accumulated through the repeated configuration of human resources in flexible, essentially transient forms of organization’ (p.9).

The new mode of knowledge production is thus associated with radical change in social and institutional locales. No longer bounded by professional structures and academic disciplines, the domain of knowledge production expands out of traditional sites such as universities, government research establishments, and corporate laboratories into wider contexts of use and application.

As the authors subsequently acknowledged, this account of Mode 2 was taken up by ‘those with most to gain’ from the concept, in particular ‘researchers in professional disciplines such as management, struggling to wriggle out from under the condescension of more established…disciplines’ (Nowotny, Scott, & Gibbons, 2003: 179). In response to these efforts in their 2001 account, in the 2001 book the authors of the Mode 2 thesis sought to
develop and extend their account by relating it more self-consciously to the wider co-evolution of science and society. This led them to draw on a wider base of social theory, as well as ANT itself, in revising and qualifying their original argument. Thus, they questioned the tendency to equate Mode 2 knowledge with applied research, which, they argued, meant retaining a linear model of knowledge production. Rather they highlighted changing features of the context for research, notably the ‘steering of research priorities’, and the growing accountability and commercialisation of science as leading to the decreasing importance of ‘pure’ research even in universities. As they put it, ‘knowledge is now regarded not as a public good, but rather as ‘intellectual property’ (Nowotny, Scott, & Gibbons, 2003: 185).

At the same time, by suggesting that these trends are important both within and beyond university settings, the authors also moderated some of the more controversial claims of the 1994 book to do with the declining influence of Mode 1 forms. For example, they accepted that ‘there is not much evidence that the development of a Knowledge Society has weakened the hegemony of traditional ‘knowledge’ institutions such as universities’ (p. 16). They also concede that changes in the organizational structures and practices associated with knowledge production have not been matched by a similar change in core epistemologies and methodologies. Despite their recognition of the enduring importance of universities, and also what might be termed the ‘epistemic stickiness’ of knowledge production, the overall thesis advanced by these authors continues to provide an important theoretical frame for exploring developments, or lack of them, in the interactions between business and academic communities.

**Actor-network theory**

The Mode 2 thesis suggests that epistemological and methodological developments have not kept pace with the changes in the organizational structure and practices associated with knowledge production. However, this failure to generate epistemological and methodological advances can be partly laid at the door of Mode 2 theorists themselves. Where there has been significant development is within actor network theory – an approach surprisingly ignored by Mode 2 theorists, despite its parallel attempt to move beyond disciplinary and theory/practice boundaries and thus any linear conception of knowledge production.

Actor network theory is not only concerned to break down the boundaries between different disciplines and between theory and practice; more significantly, it also rejects the humanist elevation of human over non-human agents (Latour, 1987). Indeed it eschews the notion of a
relationship between human and material entities since it denies any separation in the first place. Latour (1993), for example, departs from the modern view of knowledge as something that is fully formed prior to its dissemination or diffusion and this would seem compatible with a Mode 2 view of knowledge as produced in the context of its application. The only problem is that Latour is happy neither with the concept of context nor with that of application. He argues that context is just a way of avoiding further descriptive work out of tiredness or laziness (Latour, 2005: 148). What should be done methodologically is to follow through the associations and trace the links between human and material elements that conventionally might seem incommensurable to see where they lead (ibid: 161-2). He would also refrain from the language of application since this gives the impression that knowledge is formed prior to its use or application. Knowledge development and its significance is a much more complex affair involving networks of human and non-human actants in local contexts of contest and controversy and within shifting alliances and resistances. The concern of ANT is to describe the complex human and non-human iterations that come to be seen as the development and use of knowledge. In this sense, it might be appropriate to revise our very conception of knowledge and application to recognize their boundaries as even more fuzzy and blurred than Mode 2 intimates.

For this reason, Latour theorises knowledge as a quasi object – a hybrid between a subject and a non-subject, and thereby a radical challenge to ontological separations of subject and object. Mode 1 theorists would see this hybrid notion of knowledge as something ‘that must be avoided at all costs by a ceaseless, even a maniacal purification’ (Latour, 1993: 112). For within a Mode 1 perspective, there is a preoccupation with ‘purification’ whereby humans and non-humans and theory and practice are kept apart as distinct entities. Mode 2 research is opposed to this purification but does not go so far as actor network theory to see knowledge as a hybrid that may move human subjects around just as much as being moved by them. This is because knowledge is frequently mobilised as a way of securing a social position and, in this way, implicated in the social rather than separate from it. Consequently, facts, machines and technologies are social accomplishments – humans and their non-human allies actively produce them through networks of translation where controversies are temporarily settled (Latour, 1987: 132-3).

Actor network theory (ANT) is primarily concerned to wean researchers away from imposing an order on what it describes that is based on a conventional humanistic or human-centric ontology where the only active agents are human subjects. It is concerned with the ‘work’ that both human and non-human agents do in assembling their nets and is primarily about describing the links, the flows, the associations and the disruptions as material and human
artefacts are assembled through a series of translations that are a condition of their plausibility. Callon (1986; 1991) and Latour (1987) identify four not necessarily consecutive moments of translation as follows:

**Problematization:** the moment when groups or actor networks of human and non-human agents form to resolve a commonly defined social or technical problem;

**Interessement:** a process significant others are persuaded that their interests can be best served through defining a problem and its solution in the same way as the network;

**Enrolment:** recruitment of both human and non-human actors to the network through identification and engagement with the development of solutions;

**Mobilisation:** a process of institutionalisation that mobilizes actors and resources to ensure that the network resolves the problems it has identified and sustains the commitment and energy of those it has enrolled.

Where, through these moments, controversies are settled, however temporarily, the network can become an ‘obligatory passage point’ and possibly ‘irreversible’ as all alternative solutions to the same problem are eradicated and any sense of disputation or dissent is long forgotten.

Now, Actor-Network Theory is not without its critics, including even its own proponents. Latour, for instance, has famously refuted it, as follows; ‘I will start by saying that there only four things that do not work with actor-network theory; the word actor, the word network, the word theory, and the hyphen! Four nails in the coffin.’ (Latour, 1999: 15). Also, as a number of commentators have pointed out, ANT was originally developed as an account of the production of natural science. It has since been applied to a wide variety of other fields, leading to questions about its relevance (Lee and Hassard, 1999). In this respect, in applying ANT to the field of management and organization, we need to be sensitive to the forms of knowledge deployed in this context. In particular, we note that the actors and networks involved here are positioned within and between different existing bodies of knowledge; the formalized study of management, on the one hand, and the context-dependent practice of management, on the other (Whitley, 1988). However, as we explore in more detail below, the focus of our study on the emergence of new forms of knowledge is to a large extent analogous with the formative arenas addressed by ANT, and this underscores the relevance of such an approach.
By contrast with actor network theory, those who advocate the Mode 2 perspective (Gibbons et al., 1994; Nowotny et al., 2004; Starkey and Tempest, 2005) would appear to do so not because of ontological and epistemological misgivings with modernist separations of nature (facts), society (power) and their deconstructions (discourse) as distinct and irreconcilable entities (Latour, 1993: 6). Yet, it is clear that supporters of co-production could benefit from following an actor network theory analysis (Latour and Woolgar, 1979; Callon, 1986; Latour, 1987; Callon, 1991; Latour, 1993; 1997; Law and Hassard, 2004), where knowledge networks are seen to cross the borders between that which is objective (like nature), social (steeped in power), and the effects of discourse (endless significations). For this would give Mode 2 theorists the epistemological and methodological advance to which they aspire.

To summarise our analysis so far, the ANT and Mode 2 perspectives provide very different ways of grasping the dynamics of academic-business interactions. ANT is not reliant on invoking fully formed phenomena such as society, structure, science, and technology as explanations or determinants of something that might be described as social order. Instead it is concerned with the emerging associations or assemblies between different human and non-human actors from which some kind of order – contingent, dynamic, unpredictable and provisional – is in process. For ANT, knowledge is best seen as a hybrid of objects, social artefacts and discourses that are organized through networks of actors and mediators mobilised for purposes of securing it, although it is always vulnerable to disruption and reassembly. In contrast, the Mode 2 perspective adopts a production-centred model of the creation of knowledge. In consequence, it is less concerned with the interplay between human and non-human actors, but highlights the wider patterns of institutional change, which make a new mode of production possible.

**Case-studies**

To explore the relative usefulness and validity of both ANT and the Mode 2 perspective on academic-business interaction, we outline two brief case studies of the development of academic-business consortia in which the authors were centrally involved. We argue that studies of this kind of consortium arrangement are especially relevant to the present debate. Much previous work on academic-business interaction has focussed on the relative value of ‘action research’ (Susman & Evered, 1978), or on other forms of collaborative projects between academics and business (Maclean, MacIntosh, & Grant, 2002). Apart from not wishing to rehearse old arguments, we contend that, for several reasons, the consortium arrangements outlined below may offer a useful site for the exploration of the relevance
argument. First, action research arguably represents a form of applied research, which falls outside the scope of Mode 2 knowledge production as defined by its proponents. Second, the project-based nature of action research and similar approaches may preclude the kinds of organizational support and more sustained interaction between academics and practitioners, which are seen as conducive to innovative approaches. Thus, a recent editorial in the Academy of Management Journal argued that ‘academic-practitioner collaborations should be continuous rather than merely event-driven, in-person rather than merely virtual, in the form of two-way conversations rather than one one-way presentations or translations only….’. (Bartunek, Rynes, & Ireland, 2006: 262). Similarly, Van de Ven and Johnson (2006), describe ‘engaged scholarship’ as involving ‘big questions’ and as revolving around ‘collaborative learning communities’. In that sense, the consortia discussed below, may be seen as especially suitable sites for reflection on the possibilities of academic-business collaboration.

We do, however, recognise the limitations of this empirical material. It is certainly subject to all the usual caveats applying to participant accounts. We acknowledge that our close involvement in respectively KIN (Knowledge and Innovation Network) and the Financial Services Research Forum (FSRF) inevitably colours our interpretation of their evolution. We leave aside the wider question of whether such colouring increases or decreases the value of our account, since the appropriate methodology for the study of and within a new arena of knowledge production is itself highly contentious. We restrict ourselves to suggesting that it may gain extra value here because there is a dearth of relevant empirical work on this topic (Jacob, 2001), with relatively few concrete instances of the practitioner engagement advocated by many theorists; itself a significant observation. Thus, as we outline below, even these brief sketches of academic-business interaction may provide some useful insights into the relevance of the theoretical lenses outlined above.

**KIN (Knowledge and Innovation Network)**

Leicester and Warwick Universities launched KIN as a joint initiative in 2002 with financial support from the Government through the HEROBAC (Higher Education Reaching out to Business and Community) fund. A number of academic researchers from the IKON research centre were involved in its development and launch. Although the funding provided no financial incentives for academic involvement – all costing having to be justified in terms of the development and benefits of a consortium for the business members – the development of KIN received a high level of support from the researchers involved. This commitment was crucial, not least in overcoming the bureaucratic hurdles to the management of funding, and the creation of collaboration across two universities. The willingness of the network’s
academic members to undertake these activities can be attributed to a variety of motives, including the opportunity to consolidate and extend opportunities for research access, an interest in translating research findings to practitioner audiences, the esteem benefits of funding acquisition, and residual idealism about the usefulness of academic research to practice.

The explicit thematic focus of the consortium was centred initially on the concept of ‘Knowledge Management’ (KM). Recent studies by the IKON researchers had problematised the way in which this concept was being applied in practice, with research indicating that the adoption of a technology-driven approach to KM was perfectly correlated with the failure of such projects. At the same time, there was a growing interest in KM on the part of practitioners, with nascent KM groups and KM managers emerging in some major firms. The KM theme thus provided an important and interesting space for academic-practitioner engagement. The original financial model underpinning the network was based on an annual subscription fee provided by individual company members, which covered the costs of running the network, including admin and overhead costs, and the costs of a full-time ‘Network Coordinator’. Early recruitment activities were successful in enrolling organizations in both the public and private sector, which were more advanced in their KM practices. The combination of high status organizations with the link to Leicester and Warwick Universities meant that KIN benefited from elite reputational effects. This initial core group of members, though small, thus became an important attractor for other organizations.

Over the subsequent period, the KIN network was successful in attracting over 25 industry members. However, much of this success can be attributed to a willingness to change and adapt the original network model. Over the period, a number of changes were made, as outlined below:

- After the third full-time Network coordinator had left the position, the Network became more reliant on the employment of a team of independent consultants to carry out the day-to-day operations.
- The initial format of network activities was focussed on quarterly workshops. This was quickly extended to include the development of an increasingly sophisticated website and portal through which materials and discussion forums could be made available on a continuous basis.
- The initial broad focus on KM was broken down into more specific topics, which were seen as especially relevant to practitioner groups. These ‘special interest groups’ were given their own pages and resources on the network website.
In the first few workshops, presentations by the academic members of the network were the norm. Subsequently, greater use was made of external consultants and ‘gurus’. In addition, the relatively advanced level of practice in many member organizations meant that workshops were increasingly given over to their presentations and cross-firm exchanges.

While the initial provision of funding for KIN reflects precisely what Nowotny et al. term the steering of research priorities, its subsequent evolution from this starting-point provides some interesting insights into the extent to which academic research can be steered towards Mode 2 knowledge production. Here, we can note that the provision of seed corn funding did not fundamentally change the institutional context for the network. In this sense, it can be contrasted with more radical policy shifts, such as the Bayh-Dole Act, which have significantly altered the institutional influences on natural science research in the USA. This lack of wider institutional change meant that important constraints remained to do with the inflexibility of career tracks and the focus of research activity. In relation to career tracks, the high level of employee turnover outlined above indicates that it was difficult to recruit and retain people into the position of Network coordinator. To the extent that such a role involves non-academic duties it is not attractive to younger researchers seeking to develop an academic career. To the extent that it involves working with academics, it is not attractive to someone seeking to develop a business career.

Another important development was the increasing centrality of business concerns to the thematic content of the network. This reflected the need to respond to (deepening) member interests in the field, and hence a divergence between practitioner and academic specialisms around the KM topic – the academic researchers, for example, were developing work on KM as a ‘management fashion’, while the practitioners were more concerned with topics such as ‘gaining management buy-in for KM’. The pursuit of greater ‘relevance’ by the network thus led to greater reliance on external consultants to respond to these specialist concerns through involvement in workshops and the facilitation of web-based special interest groups outlined above. At the same time, the academic members were subject to the accountability pressures produced by the RAE exercise – this encouraged them to focus their activities more narrowly on publishing, and to relinquish some control of the intellectual agenda pursued by the network. To reflect the shifting scope of the network, a steering committee was established in which member representatives played an important part.
The Financial Services Research Forum (FSRF)

The Financial Services Research Forum (FSRF) was established in 1993 at Manchester University for purposes of ensuring continued funding for a Financial Services Research Centre that had initially been funded by the TSB bank. Its vision was to establish a regular dialogue and debate on issues of common concern for those with an interest in the financial services industry. In particular the FSRF was appealing to the idea that there was no single body representing the financial services sector as a whole. Largely because of deregulation and regulation, the sector had recently been created out of the distinct industries of banking, insurance and building societies. The early take-up was slow with only 7 companies committed after an initial meeting but due to a concerted sales campaign to secure membership, in less than 3 years there were 25 fee paying members including Barclays, Co-operative Bank, Lloyds TSB, Midland Bank, Nat West, Royal Bank of Scotland, General Accident, Royal Sun Alliance, Scottish Equitable, Britannia, Coventry, and Nationwide Building Societies. The Forum was managed through a steering committee of 3 practitioner members and the academic Director and Deputy Director of the Forum but chaired by a practitioner, as were all the Forum meetings. At Nottingham, the steering committee was comprised of 4 academics and 4 practitioners plus the Executive Director but currently the practitioner membership of the committee has expanded to 8. The rationale for this was to ensure a quorum of practitioner members since the latter cancel more frequently than the academics. However, a much more important reason is that it helps to enroll more of the membership in the activity and facilitates the mobilization of resources and people both from their own companies but also beyond.

Because of bringing in external funding and the prestige of large corporations being associated with the university, senior management including the VC fully endorsed the activity and waived overheads that would normally have added an additional 40% of costs for membership and perhaps have prevented it developing. They were soon rewarded because due to the Forum, the university was invited to bid for, and won against stiff competition, a contract to convert and validate the Chartered Institute of Bankers (CIB) professional examinations to degree status at a cost of £3.8m over 10 years. Building on the success of these ventures, the research centre then developed, and secured funding of £140,000 for, a Centre for Personal Finance Education (CPFE). Other academics in the School of Management where these activities were located had never been wildly enthusiastic about these developments ostensibly because they were seen as too close to market, ‘selling out to industry’ by serving the PR interests of a sector that was suffering numerous regulation
scandals and a comparatively bad press. Consequently, the Head of School used a technical
detail regarding its approval in the development committee to scupper the CPFE. That these
were only surface objections was revealed when the co-founder and Director of the FSRC and
FSRF announced his departure to a new university, since every effort was made
(unsuccesfully) to retain the Financial Services Research Forum.

The Forum followed to Nottingham University but at a much-reduced membership – only 11
corporate members. An essential condition of the founder continuing to promote the activity
was that someone else carried out the day-to-day management and after a brief time an
external consultant with a visiting professorship at the university was appointed as the Chief
Executive. There were some difficult tasks ahead not least those of rebuilding the membership
but also of developing the kind of research and debating sessions that could convince ‘hard
line’ budget holders in the financial services that it was worth supporting. This was put in a
direct and stark way to the Executive Director when, in conducting a feedback exercise, he
was told: ‘the thing is, you’re not scratching where we’re itching’! (Waite 2005).

On the academic side, the problem was, basically, to divert staff from the preoccupation with
the forthcoming Research Assessment Exercise (RAE), and to convince them that there was
something to be gained by conducting industry-commissioned research. This remains a
perennial problem because the short-term and practitioner-oriented nature of the research does
not lend itself to generating publications for high-ranking academic journals. Fortunately,
there was a group of 4 senior professors and a few contract research staff whose career and
publication record did not deter them from participating in the Forum.

Eventually, through a series of strategic changes and most particularly by inviting associate
members from government, the regulator, educational groups, consumer interest groups and
voluntary associations, the FSRC went from strength to strength in terms of membership,
attendance at meetings and commitment to the activity. However, the momentum to develop
the Forum into an organization that had impact on both the sector and on public policy
continued, culminating in an away day for the steering committee in 2003 at which it was
concluded that:
The Forum should devote more attention to the following:

- Increase the profile of The Forum through greater use of PR opportunities - a
  practitioner offered to help.

- Make optimal use our affiliate connections and demonstrate to core members that we
  are having an impact.
• Offer to present our research findings to government departments.

• Initiate round-table discussions with our affiliates and involve core and associate members in the process.

• Rather than invite members to propose specific research topics, we should ask them to suggest themes that are of importance to them. The academic community will then be invited to craft suitable research proposals.

• The Forum should see itself more as a solver of issues on behalf of members than as a producer of academically initiated research.

• We should continue to focus on consumption, distribution and financial education.

Recently a second feedback survey has been conducted and more streamlining of the activities has resulted and a Research Director post created within the university, thus hopefully generating more academic interest from within the university. This has been largely created to relieve the Executive Director from an ever-increasing workload but also to facilitate a greater integration between the Forum and the university. The Forum’s concern to enrol more academics and mobilize their resources from the university has been enhanced by the status deriving from having the main funding agency for research in social sciences as a newly acquired member and one that co-sponsors major meetings. Although the present incumbent had only recently joined the steering committee, he had been working in a research and supervisory capacity with the Forum for a few years. The Forum buys out a small proportion of the Research Director’s time formally from the university.

Analysis

The development of KIN and FSRF provide some useful insights on the validity of the Mode 2 analysis for academic-business interaction. These are summarised in Table 2 below. As this table indicates, the comparison between the features of these consortia and claimed Mode 2 characteristics tends to suggest that the institutional change implied by Mode 2 production is not easily secured. Although some features of the consortia – notably the organizational arrangements - reflect a more Mode 2 pattern, others seem to simply reflect an ongoing tension between the practitioner concerns of the consortia and their location in a university setting where Mode 1 orientations are still prevalent. As noted, above, for instance, the institutional context of the university was important in shaping career paths and hence interests, making more ‘hybrid’ roles such as the Network coordinator difficult to source and sustain. Both cases also highlight the ‘epistemic stickiness’ of Mode 1 knowledge with limited signs of emerging transdisciplinary knowledge and more evidence of a unilateral shift.
towards applied consultancy knowledge. Certainly, the success of these consortia did not strongly influence the research agenda of the academics involved, although partial modifications were made to maintain practitioner enrolment. Rather, the accountability pressures of the RAE more than outweighed the steering of research priorities in influencing that agenda. Because the academics involved with the FSRF were senior professors, they were willing to sacrifice a limited part of their scholarly interests in pursuing an agenda more closely geared to the interests of the Forum members but it was almost impossible to secure support from younger non-professorial staff because of RAE and other institutional commitments.

At the same time, the intellectual concerns of the academics and practitioners involved remained distinctively different. While practitioners welcomed the wider intellectual arena afforded by the KIN consortium, for instance, the need to ensure ‘value for money’ led to a focus on problem-solving tools and practices more than researchable concepts. As the academic members were not able or willing to provide such tools, the network was increasingly configured around peer-to-peer interactions, as enabled by the website and portal, which could address such needs. It was also widened to include external consultants who could facilitate and contribute to such interactions.

Similar pressures were in force in the FSRF especially the demand for usable data and material of the kind that might be provided by consultants, but there was some resistance to this from the academics. However, there was also evidence that the practitioner members valued an independent academic perspective on issues even when highly critical and controversial since it would allow them to ‘think outside the box’ (Tiratsoo 2005; Waite, 2006). As for the co-production of knowledge heavily promoted by Mode 2 theorists, in the FSRC this could be said to operate at a comparatively low level of intensity through the debates and discussions in general and steering committee meetings and the feedback surveys, all of which contributed to the design and development of research projects. However, when attempted in a more detailed way, it tended either to push the research beyond the terms of reference of the original proposal or to collapse because of the extra time and energy that it demanded of both academics and practitioners. In such cases, limited financial budgets for research were a major constraining factor and although the Steering committee was enthusiastic about co-production, they frowned upon spending beyond budget, which was an inevitable outcome of extending the objectives of the research. It was also the case that once the practitioner participants were given scope to be more engaged in the conduct of projects it opened up the floodgates in terms of them perceiving a potential to have the Forum conduct research or data collection that was important for their ongoing in-company projects. Indeed,
at one such co-production meeting early on in the life of the Forum, a senior executive had to constrain more junior delegates from pursuing their immediate project tasks through Forum research, arguing that this was not appropriate to the strategic orientation of the Forum.

Table 2: Academic-business consortia from a Mode 2 perspective

<table>
<thead>
<tr>
<th>FEATURES OF KNOWLEDGE PRODUCTION</th>
<th>KIN</th>
<th>FSRF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focus of knowledge</strong></td>
<td>Shift from academic focus to sharing of practitioner concerns and experiences, development of tools</td>
<td>Independent academic focus combined with practitioner interests. Overall sectoral focus.</td>
</tr>
<tr>
<td><strong>Forms of knowledge</strong></td>
<td>Multiple forms of knowledge – conceptual and practical forms, but with increasing emphasis on managerial ‘tools’</td>
<td>Focused around strategic issues related to consumption, distribution, education and regulation</td>
</tr>
<tr>
<td><strong>Disciplinarity</strong></td>
<td>Deepening specialization around practitioner concerns rather than transdisciplinarity</td>
<td>Degrees of transdisciplinarity between economics, sociology, HRM, IT, organizational analysis, and marketing but determined largely by academic participants and practitioner delegates</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
<td>Move from academic control to a more heterarchical organization in which academics, consultants and member firms all exerted significant influence.</td>
<td>Predominantly academic through the Research Planning Group advising the Steering Committee but increasingly heterarchical as the latter exercises its power to propose and veto activities. Heavily steered, however, by the Executive Director</td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>Increasing accountability to practitioner members via the KIN Steering Committee. Important role played by freelance consultants highlighting member interests.</td>
<td>Increasingly accountable to practitioner members but the Executive Director steers the meeting in the direction already agreed by the Research Planning Group of academics.</td>
</tr>
</tbody>
</table>
As we have seen, the Mode 2 perspective on the KIN and FSRF consortia cases may lead to pessimism on the prospects for greater academic-business interaction. However, as we discuss below, such pessimism may actually be the result of a structural and institutional emphasis which highlights existing constraints on action. As we move on to the insights provided by actor network theory, we may be better able to see the glass half-full. Here, we note that despite the unfavourable institutional context, our evidence from these consortia suggests that generative knowledge inducing and network enhancing activities were much in evidence. These features are summarised in Table 3 in relation to the four moments of translation and their effects as discussed earlier.

In emphasising the associations and assemblies that link both human and non-human actors, ANT allows us to highlight first the way in which the concept of Knowledge Management in KIN, for example, was central to the Problematization of certain practices for academics and practitioners alike. The continuing level of interest and support for the consortium can be attributed to the contribution of this concept’s ambiguity and plasticity (as seen, for instance, in the special interest groups) in its problematising role. Similarly in FSRF, a range of issues such as personal finance education, information technology, regulation, corporate social responsibility, and trust were seen as problematic both by the academics and practitioners, so ideal for mobilising research resources and enrolling practitioners in pursuit of solutions if only to reduce the ambivalence and ambiguity surrounding them.
Table 3: Actor-Network Formation in Academic-business consortia

<table>
<thead>
<tr>
<th>MOMENTS OF TRANSLATION</th>
<th>KIN</th>
<th>FSRF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problematization</strong></td>
<td>The development and implications of KM practices</td>
<td>New industry of financial services created through regulatory change</td>
</tr>
<tr>
<td><strong>Interessement</strong></td>
<td>Initial core group of more advanced KM practitioners and link to high status Business School became an attractor for other organizations.</td>
<td>Only cross sector group combining banking, building societies and insurance. Common interests and concern to eradicate poor image due to regulatory scandals</td>
</tr>
<tr>
<td><strong>Enrolment</strong></td>
<td>Development of special interest groups that enabled greater specialization of interest and another level of involvement via the KIN website and portal</td>
<td>Network with industry and academics and later with government departments, regulators, consumer bodies and voluntary groups. These served as important allies in recruitment and retention</td>
</tr>
<tr>
<td><strong>Mobilization</strong></td>
<td>Workshop events in high quality venues, and featuring leading KM ‘gurus’ and experts. Participation in workshop activities leading to ongoing project and special interest group activities.</td>
<td>Corporate brand image; prestigious venues and endorsements; website; glossy brochures and research reports; steering committee enlargement</td>
</tr>
<tr>
<td><strong>Obligatory passage point</strong></td>
<td>Development of the KIN brand linked to the status of member organizations strengthened its position as one of a very small number of leading academic-business networks.</td>
<td>Size of meetings and membership; venues in London; high profile speakers; recognition through media publicity</td>
</tr>
<tr>
<td><strong>Irreversibility</strong></td>
<td>While KIN has developed a strong position in the KM field, the risks of changing managerial interests have recently led it to broaden its focus to give greater emphasis to innovation.</td>
<td>Not secured as yet but size, prestige, publicity and professionalisation of activities has created situation where for many members it has been forgotten that there was any controversy as to whether to join or remain a member. Precarious due to dependence on Chief Executive with no succession policy in place.</td>
</tr>
</tbody>
</table>
Second, ANT’s notion of interessement can be related to the recruitment of members to both of the consortia. Both consortia were seen as offering solutions to a set of problems that could not be readily resolved within each member organization, partly because the problem may not been seen to be ‘scratching where they are itching’ and therefore not have immediate bottom line value. In the case of KIN, the initial recruitment of high status multinational organizations who were seen as more advanced exponents of KM became an important attractor for other organization. As was noted earlier, however, the problems defined by the KIN consortium became deeper and more specialized providing it with the facility to enrol and mobilize new allies in the form of ‘special interest’ topics, groups and external consultants. In FSRF, other human and non-human allies such as government representatives, consumer groups, regulators, voluntary agencies, the ESRC, prestigious speakers such as government ministers, comedy presentations, brand named locations for meetings, topical projects and prestigious endorsements were all mobilised as part of a continual regeneration of interest (interessement) to enrol new and keep existing members enrolled. In the early days of generating interest in the FSRF, deregulation and regulation, regulatory scandals, and government policy were significant non-human actors helping to secure interest, enrolments and mobilisations.

Third, enrolment applies to the development of more specialized roles within both consortia, encompassing not only the network coordinator, but also the academics and members involved, for example, through membership of the steering committee. Individual members were also enrolled as sponsors of particular projects in FSRF and the intention was for any publications stemming from the project to be jointly authored by the academic and the practitioner. The websites of the consortia also played a role in enabling collaboration between members, and ensuring consortium involvement between workshops.

Fourth, mobilization can be identified with the periodic workshops at which consortium members were both engaged in affirming their membership and, through the presentations and interactions of the day, persuaded to commit themselves to specific actions as a result. Non-human forms of mobilization involved holding venues in member companies where invariably the ‘PR machine’ would kick into operation thus enrolling other parts of the corporation such as catering, technology, PR, human resource management, and marketing.

While these moments of translation transformed both consortia into networks of the kind theorised by ANT and that for many of their target audiences had become obligatory passage points, neither could be seen as achieving irreversibility. By way of demonstrating how the
FSRF is developing precisely along these lines we provide the content of a recent communication from the Chief Executive (see annexe 1).

The comparative analysis of the above examples is also quite revealing. First, it highlights a good deal of similarity in the way these consortia were initiated and subsequently developed. Both consortia have survived crisis periods and are currently thriving. They have also overcome very similar challenges to do with the indifference or antipathy of their university settings, and difficulties in securing the involvement of a wider range of academic colleagues. Neither consortium can claim to have realized the Mode 2 vision of knowledge production – there remain significant tensions between the academic approach to research, and the perceived needs of practitioners. This does not mean that practitioners do not appreciate the academic viewpoint, but that the demands of managers’ practice also involve the creation and exploitation of forms of knowledge that are more specialized and instrumentally focussed.

Where there were differences in the experience of the consortia, this may be related to the thematic concerns that helped to mobilize their networks. In one case, a focus on ‘Knowledge Management’ made it easier to recruit from a range of sectors. But, over time it may have also heightened tensions between academic and practitioner knowledge as the deepening specialization of interests led practitioners towards micro-level tools and practical frameworks. In the other case, a focus on one industry (financial services) meant there was a common set of problems - regulation/ deregulation, big policy changes in pensions and savings, CSR and globalisation - to discuss and research, and therefore an interest in sharing problems and identifying solutions facilitated by the consortium. This varied menu of topics helped to provide a comparatively stable, large-scale focus for debate and interaction. Equally though, there have been tensions when sometimes one of the sectors (banking, insurance or mortgages) was deemed to be taking the lion’s share of research or of the topics at meetings. Also some conflicts have arisen about the minnows of the industry being charged the same as the giants and while it has often been an agenda item, so far differentiated pricing has been avoided.

Summary and Conclusions

The debate about the relevance of management research is currently high up the UK government’s agenda and therefore is being filtered down to the funding agencies for universities. In the recent period, the ESRC, the UK’s premier funding body for management research has dedicated a figure approaching £30million to research for the AIM (Advanced
Institute of Management initiative). This research is expressly designed to be more relevant to policy and practitioner needs. Two of AIM’s four objectives are specified as follows:

- ‘Conduct research that will identify actions to enhance the UK’s international competitiveness’
- ‘Conduct research that is relevant to the needs and interests of beneficiaries in the private sector’

This is clear evidence of the way in which research funding is increasingly being steered towards more applied forms. The ESRC is also placing increasing emphasis on ‘knowledge transfer’ from research to practice as a crucial aspect of the design and evaluation of research projects more generally. These developments suggest that classic Mode 1 research is under increasing pressures in the management and organization studies area at least.

However, on the basis of our albeit limited empirical experience and theoretical reflections reported here, the problem is that the ESRC, and it might be added government and other change agents, often subscribe to a questionable conception of the way that knowledge and ideas are produced and travel. This is generally based on a model of diffusion where an idea or knowledge is seen to be already fully formed in advance of its so-called application and to move from its genesis to application in a unilinear fashion, as if ‘facts’ speak for themselves. According to this model, ideas, innovations or inventions are believed to cause behaviour for the strength of the knowledge is seen to bring about assent whereas we would argue that there has to be some degree of assent before knowledge can be generated and even begin to take on some kind of significance. Like the Call for this workshop, we eschew ontologies that assume knowledge to precede practice but through actor-network theory, we have taken this a stage further to recognise that knowledge development and its significance tends to occur through a whole series of collective translations within networks of human and nonhuman actors that rarely run smoothly from one point to another, but usually suffer numerous setbacks, disruptions, dislocations and/or modifications. In practice, of course, the ESRC and other bodies probably realise this implicitly, for if not they would be disinclined to join and sponsor the FSRC consortium and similar activities, for example. The problem is that it has not become a routine part of their narrative, which at best is steeped in Mode 2 thinking and often slides into Mode 1 language despite disdaining the tradition from which this derives.
Against this backdrop, the debate about the viability of different kinds of academic-business interaction may have very real consequences for the future of particular forms of research. In seeking to contribute to this debate, we are mindful of certain limitations of this paper. It does not claim to be a fully developed empirical paper, since it reflects experience of only two examples of academic-business interaction (but see note 8). Moreover, the contexts and aims of such interaction are limited to the arena of management and organization practices, and do not encompass the much wider field of interactions seen in the natural and other social sciences. In this sense, the paper can only be an initial exploration of the relative value of existing theoretical perspectives on a particular kind of academic-business interaction. At the same time, the paper does help us to ground what has sometimes been a very abstruse debate in more concrete experiences of academic-business collaboration.

In addition to the theoretical insights about knowledge formation and development emanating from adopting an actor network approach, the tentative implications derived from our empirical experiences are to suggest that what we have called the ‘epistemic stickiness’ of academic knowledge remains a significant challenge for any attempt to develop forms of interaction between academics and practitioners. This links to different mechanisms of quality control for knowledge production, where the assessment of research in terms of theory contribution and ‘public goods’ contrasts with the drive for ‘private goods’ in a market arena. It follows that the differences between these groups are not readily bridged simply through better forms of communication. This combined with the weaknesses of diffusion theory may be a severe limitation of any approach based on the notion of ‘knowledge transfer’. Moreover, inasmuch as the Mode 2 perspective highlights these differences by contrasting Mode 1 and Mode 2 forms, it may be a better explanation of failure than success. As other writers (e.g. Barley & Tolbert, 1997) have noted, institutionally focussed accounts are often better explanations of stasis than change. On the other hand, since it is not saddled with these and other distinctions that raise false expectations, the ANT perspective as outlined here may be more capable of grasping the emergence of new hybridised forms of knowledge, even where the participants themselves are not conscious of them.
References


Annex 1 Note from the Chief Executive of FSRF

[…] denotes a translation in brackets of statements from an ANT point of view.

“We have had a good year on the new member recruitment front having secured full fee-paying membership from the ABI, FOS, L&G, Ecclesiastical Insurance and Derbyshire [enrolment]. Additionally, I have been successful in regenerating membership from Abbey plc and Cattles, both of whom had lapsed [Interessement and mobilization]. This positive progress means we can admit some additional Affiliates from the not-for-profit sector [mobilization and obligatory passage point]. Last Autumn we admitted the Resolution Foundation on this basis, and I am pleased to tell you that yesterday Joanna Elson, CEO of Money Advice Trust, and Bernie Morgan, CEO of CDFA (Community Development Finance Association) agreed to join us [enrolment]. Both organisations are extremely highly regarded and well-connected in political/governmental circles [non-human actants enhancing enrolment and mobilization].

Affiliates are playing an increasing role symbolically and practically [non-human actants enhancing enrolment and mobilization]. As far as the former is concerned, this has enabled us to claim a uniqueness in terms of our inclusiveness and has been of genuine value in raising our profile [non-human actants enhancing enrolment and mobilization]. In turn, this has had practical effect, eg: [each provides further examples of human non-human actants enhancing enrolment, mobilization and possibly network irreversibility]

- Resolution Fdn ensured we were included in the Thoresen Review and last week invited me to represent The Forum at a briefing session it had arranged with the IPPR for a delegation from the Canadian Government.
- The FS Consumer Panel is hosting the Autumn Seminar this coming November at the FSA.
- The DWP is providing accommodation for the Steering Cttee when it meets on Monday 2 July. (this saves us £400 for a room at the Grange Hotel)
- Sue Regan (CEO of Res Fdn) is acting as honest broker in trying to get Ed Balls to speak at our Autumn Seminar.
- The CDFA has issued an invitation for our members to accompany them on an official fact-finding trip to the USA this coming October re financial inclusion (I'll advise you more about this in due course).
- The ESRC has co-funded last year's Summer Seminar, is doing the same this July and has advised me of its desire to do the same again next year.
- I am making a condition of becoming an affiliate that they should give us first refusal re any future research/reports that they may be intending to commission (so long as it fits with our strategy and resources). All new affiliates are willing to agree to this and I really do think it presents a rich source of future research funding.

Thus, we now have some 49 members and affiliates and I am anxious to get some more fee-paying members on board to ensure we are safely over the 50 mark [enrolment and irreversibility].
Ironically short of 50 years ago, the argument was quite the opposite - that business schools were insufficiently academic, rigorous, or scientific (Gordon and Howell, 1959).

Participant observation has been the principal method of research for anthropologists studying non-Western cultures by fully immersing themselves in their social life but in the form of ethnographic research, it has also been a popular method for conducting research in Western subcultures, business settings and workplaces. There is a continuum from observation without participation at one extreme to full participation at the other. Our role in these consortia was fully participant, although we have thereby had access to documents that might not otherwise have been possible.

The invented word actants is used to replace actors only to avoid the presumption that they are only human beings. Invariably the words are used interchangeably.

This section benefited from the comments of Prof. Maxine Robertson who was closely involved in the development of KIN.

The Research Assessment Exercise (RAE) is a uniquely United Kingdom invention designed to raise the productivity of academics but diverting the largest part of their energies into the incestuous activity of publishing primarily in scholarly refereed academic journals, read only by other academics and very few of them to boot. UK academics are assessed every few years on the basis of the quality of a minimum number (4 at present) of publications and this determines the research proportion of national funding for the university.

Since its move to Nottingham, the Forum had relied a great deal on support that DK provided employing external researchers under his supervision.

Of course, for a few members this was a reason for leaving the consortium but with greater degrees of enrolment and mobilization, it is less of a preoccupation.

Research on academic-industry collaboration of a more general nature was conducted under the auspices of the ESRC Evolution of Business Knowledge programme directed by Harry Scarbrough - see Alferoff and Knights, 2005 and Forthcoming.