Re-Focusing the Business School Agenda

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This commentary agrees with Starkey and Madan (2001) that business schools must incorporate Mode 2 production methods if they are to be significant knowledge producers in the future. We reinforce their specific suggestions about how that might be accomplished by focusing on learning from early Mode 2 attempts, promoting practitioner research, seeking business co-sponsorship and sheltering some Mode 1 practices and values, including longitudinal reflective research and information storage. We also argue, however, that business schools must go beyond such tasks, difficult and expensive though they are. The way business and business schools currently operate, and are being encouraged to operate, does not address the broader issues of human relevance that concern James March (1998) and others. The gap here is a risk for business and society, and appears to require new, Mode 3, methods of knowledge production.

The limitations of current business school activities have been the subject of conversation for some time, and these discussions inevitably conclude with a call for significant redirection and innovation. Andrew Pettigrew (1997) and Tranfield and Starkey (1998), for example, are among those who have argued that fundamental changes in science and technology have effectively eclipsed the disciplinary debates that until recently held centre stage in research-oriented business schools. Change is driven by many other factors as well, including the increasing importance of inter-national rankings, public pressure on teaching performance and the more focused agendas of governmental funding agencies. This issue of the *British Journal of Management*, which is joined by similar efforts at *Organization*, the *Administrative Science Quarterly* and the three *Academy of Management* publications, is itself a sign that transformation is beginning to take place.

Still, the work has just begun, and the pressures do not point in a single direction. The Starkey and Madan report contributes to needed conversation by focusing on the 'relevance gap' between business schools and business. The emphasis of the report is not just on new, more interactive research, but on the business school as a 'bridge' in the dissemination of knowledge. The way Starkey and Madan frame their contribution goes well beyond traditional definitions of academic research and teaching. Section 5 more specifically suggests a practical set of needed actions:

- restructure institutions to improve knowledge exchange and dissemination;
- create ongoing research fora around specific problems;
- create new measures of academic impact;
- establish cross-disciplinary, impact-focused, time-relevant associations and journals;
- increase the speed of knowledge production;
- create an independent Management Research Forum/Council;
- expand funding priorities.

In the commentary that follows, we support and expand on this agenda, then pick up the relevance gap issue where Starkey and Madan leave it, with a quote from James March about the importance of the 'human agenda'.

Additional recommendations for Mode 2 operations

It would seem that a primary reason for inviting multiple commentaries in this issue is to further expand Starkey and Madan's agenda for closing the relevance gap. To reinforce the valuable suggestions they have made, we therefore recommend several compatible points of action:

1. Learn from and link exemplars

Attempts to close the gap between business and practice have been going on for some time, in different places, around disparate but related topics. Further steps will come to fruition more quickly and reliably if this experience is systematically evaluated. An important effort, for example, has been to increase faculty awareness of global commerce. In 1988 the US Congress therefore made a significant commitment to build Centers for International Business Education and Research. Twenty-eight university-based CIBERs are now in place in the USA, linked by an active website (www.ciber.centers.purdue.edu). The achievements and inevitable disappointments of this infrastructure are worth examining before making similar significant investments. Dispassionate evaluation is less the focus of our suggestion, however, than community building. Points of future collaboration are important, and 'wins' to date should be publicized as an impetus for further change.

2. Increase the number of programs facilitating practitioner *research, and provide for the dissemination of knowledge from these contributors*

Starkey and Madan describe FENIX, the Swedish collaborative project that includes an Executive PhD programme drawing participants from four companies. The dissertations being written are part of a remarkable increase in practitioner research projects found in many settings, including medicine (Edwards and Talbot, 1999). Training boundary-spanning researchers from business is a significant way in which business schools can contribute to a new mode of knowledge production. In addition to executive PhDs and DBAs, more could be done to increase research skills among Masters and even undergraduate degree students. In fact, certification will not always be necessary. The research done by practitioner researchers potentially closes the relevance gap from both ends. It will require, however, dissemination mechanisms that are similar to the ones Starkey and Madan describe, but specifically tailored to promote conversation among practitioner researchers and other scholars.

3. Increase the number of global projects

For a new research agenda to be relevant, more projects must operate at the scale and scope of today's largest companies. A key question for business researchers is how to effectively harness a very large, very loosely-coupled collection of colleagues around the world. Andrew Pettigrew (1997) describes one such project on international networks. Funded by the Economic and Social Research Council (ESRC) in the UK, research in the UK, Europe and Japan was facilitated by a partnership with Coopers and Lybrand. Another ambitious project is headed by Robert House. His multimillion-dollar GLOBE project, funded by the National Science Foundation in the USA, unites more than 170 researchers from around the world who are systematically studying leadership in different national contexts. Here again it is important to evaluate and learn from such projects before funding further large-scale efforts.

4. Seek significant corporate partnership in publicly available research projects

Business schools are small, relative to the world of commerce. Our most ambitious alliances to date are dwarfed by the organizations we study, and we need to leverage our assets. Partnerships with business are an obvious answer, but as Jim March and John Reed note (Huff, 2000a), today's relatively limited funding is almost entirely connected to immediate corporate needs. Business schools need to find topics that capture business attention, the essence of Starkey and Madan's recommendations. We also need to make an effective argument that business will benefit from open knowledge development around these topics. A basic tenet of Mode 2 is that transparency in the knowledge generation process will generate inputs from diverse, previously unidentified, sources (Gibbons *et al.*, 1994),[1]

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[1] The argument is persuasively made by Stephen Dedijer, once on the faculty at Lund University, now a business intelligence consultant in Croatia, and on the editorial board of the journal *Competitive Intelligence*.

yet this is not a characteristic of the business academic partnership to date. Individual donors do make important contributions to specific schools, and companies do make small general purpose contributions to research, but it is very telling that two global figures, March and Reed, could not identify significant research funding from corporations other than Citicorp.

5. Continue to shelter Mode 1 research

It would be a mistake to assume that all business school research should be Mode 2 research. An important feature of Mode 1 is the unfettered pursuit of knowledge that has no apparent commercial benefit. This alone is an important reason for business schools to continue sheltering Mode 1 work. Future knowledge production is jeopardized if the only projects pursued are those that some sponsoring agency or organization currently finds important. No collective is wise enough to take on this responsibility. Universities are the 'gene pool' of society. By housing an active and diverse group of scholars, including those whose work is currently out of fashion, they increase the likelihood that the organizations they serve will have needed resources for future knowledge needs that are not currently recognized.

6. Commit to longevity and reflection as well as speed

Starkey and Madan rightly criticize many business school projects for being unable to address rapidly changing business needs. While timeliness is very important, business schools can also provide settings where the members of organizations stand back from the events they rush to complete. Projects aimed at understanding long-term effects and larger patterns are important. More generally, the message is that the construction of a new agenda can benefit from Mode 1 strengths.

7. Promote and store information and analysis

Universities have traditionally been a central repository of information and knowledge. This role has been radically altered by the electronic storage and transfer of information, yet the proliferation and variety of these new sources makes systematic collection increasingly important. There is an under-recognized need, in our opinion, to arrange for the long-term preservation of knowledge produced in new modes – information that might be needed for purposes that cannot be completely pre-specified. Web-based data sources, in particular, decay and disappear. One place these issues are being addressed is the University of Michigan's School of Information. Formed by computer scientists, librarians, economists, public-policy analysts and others, the school is at the forefront of developing tools that not only collect but analyse data from disparate sources. They then encourage group work (often in different locations) with interactive tools that facilitate reflection.

The overall point in each of these recommendations is that the effective business school bridge is likely to build on past strengths, even as it stretches toward new ways of operating.

Expanding into Mode 3

We were editing this essay when the World Trade Center disaster occurred on 11 September 2001. At the risk of over intellectualizing this tragic event and its aftermath, it is clear that immediate needs were paramount – to search for possible survivors, globally disseminate information, mourn incredible losses, tighten security, identify individual attackers and their facilitating infrastructure, develop a coalition for response. In the first few weeks these and other activities seemed to illustrate the inherent strength of a diverse society, well served by both Mode 1 and Mode 2 capabilities. The basic hallmark of Mode 2, the in-process development of new vocabulary and understanding, was particularly evident.

Yet this experience strongly reinforces our belief that it is important to push debate about the viable future of business and business schools beyond the concerns that have dominated attention over the last few years. As more complex information and more varied views about the disaster and its implications began to be heard, the available settings for conversation and sense-making seemed too thin. The absence of sense-making bridges in this time of crisis brings into sharp relief James March's perceptive observation and challenge to work on the bigger questions which 'deepen an intellectual understanding of the relation between activities in business and the major issues of human existence' (Schmoder, 1998), as James March recommends.

Starkey and Madan focus their report on the link between knowledge and action, as made clear in the first figure of their report. In the rest of this commentary we want to shift attention to the context surrounding the link between knowledge and action, highlighting the often unacknowledged human antecedents for organizational action, and their often unanticipated human consequences (Giddens, 1984; Huff and Huff, 2000, p. 207). The relevance gap here is even more acute, and more neglected, than the one which has been the subject of discussion so far.

Events of that week in September have accelerated the globalization of governmental activity. The public sector thus more visibly joins the private sector in increasingly influencing human existence: public and private organizations influence people not only at work, but in what was once considered private life. They are increasingly involved, for example, in early childhood care, in leisure, in charitable activity, in old age, death and in many other experiences. These activities are made possible by Mode 2, but 'inequalities of distribution have become more marked in . . . the process of global diffusion of knowledge production' (Gibbons *et al.*, 1994, p. 113). Furthermore, knowledge inequalities are interconnected with other inequalities in wealth, health and opportunity.

We question whether Mode 1 or Mode 2 knowledge production can satisfactorily track either the human inputs to organizational activities or their human consequences. Huff (2000b) suggested the development of Mode 1.5 activities 'above' current work. On further refection, a call for 'Mode 3' knowledge production seems more appropriate, because it more clearly indicates an important progression in the aims and scope of knowledge production. In following the logic for Mode 3, it is useful to remember the status of the Mode 1/Mode 2 vocabulary. Gibbons *et al.* (1994), who coined these terms, were 'punctuating' (Weick, 1979) complex practices, especially in the physical and natural sciences. They were not identifying concrete entities, but describing the central tendencies of a large number of varied, often uncoupled, activities.

A further punctuation seems to be required if business and business schools are to address the basic questions of human society. The preliminary but distinguishing shape of these knowledge production activities can be seen in the comparisons outlined in Table 1.

Some of the most important reasons why the basic issues of human existence cannot be addressed with Mode 1 or Mode 2 methods have to do with how and why knowledge production is activated, and by whom, as outlined in the first three rows of

Table 1. Alternative modes of knowledge production

Descriptors	Mode 1	Mode 2	Mode 3
Activity trigger	theoretic or empirical hole	thwarted goal ('problem')	appreciation and critique
Participants	homogeneous sub-discipline	activity-centered, transdisciplinary (including Mode 1)	diverse stakeholders (including Mode 1 and Mode 2 producers)
Goal	truth, theoretic extension, order	solution, improvement	future good
Methods	pre-tested, paradigm-based	often invented, based on experience	collective experience, conversation
Activity site	sheltered 'ivory tower'	practice	off site (but aware of practice)
Time horizon	individually driven, often unimportant	often immediate, transient	community driven, immediate to very long term
Boundaries	disciplinary, pure/applied, institutional	transdisciplinary, often proprietary	multiple modes of knowing
Beneficiaries	individual scientists, professional groups	firms, government bodies, etc.	society
Quality control	élite-dominated peer review	utility, efficiency	community agreement
Funding (primary source)	university, government	business	philanthropy? university, business, government
Dissemination	scholarly conferences, journals	practitioner conferences, mobility, internet	local to global debate and action, media report

the table. Disciplines are by definition theoretically defined; in Mode 1 their members advance their own and their discipline's work when they identify and fill gaps in that theoretic structure. A different kind of knowledge production, Mode 2, takes place when problems are encountered in practice. Gibbons *et al.* are at pains to point out in their very first pages that:

> 'Mode 2 involves the close interaction of many actors throughout the process and this means that knowledge production is becoming more socially accountable. Overall, the process of knowledge production is becoming more reflexive and affects at the deepest levels what shall count as "good science".' (1994, vii)

Note that the reference in this statement is to 'good science', as previously defined by Mode 1. Though Mode 2 activities can be more transparent, we are highly sceptical that their increasing accountability will uncover 'the major issues of human existence'. The goal of Mode 2 activities is the solution of specific (though often very complex) problems. Often they are connected with opportunities for profit. Solution-seekers are diverse, and highly mobile. Initial problems are often replaced by others, even before 'satisfactory solutions' (especially from a Mode 1 point of view) are found.

Gibbons and his colleagues outline in considerable detail how Mode 2 practices grow out of Mode 1, and point out that those in Mode 1 continue to make contributions to Mode 2. In a similar vein, both modes are contributory to Mode 3, and the debates raised should not be expected to occur exclusively in any one of the three contexts. Thoughtful practitioners of Mode 2, for example, clearly worry about many consequences of their activity, from human cloning to environmental impacts that may outlast human life on the planet. But, as summarized in Table 1, these actors are pressed by immediate knowledge production demands, often inventing on the fly. For the foreseeable future, neither peer opinion nor law seems likely to control the quality of many of these inventions. Mode 1 processes of testing and peer review are too slow, and Mode 2 projects often operate at a scale that exceeds national and international public fora and legal systems while avoiding or ignoring the larger societal consequences of their work. Indeed, important parts of what is being done are not yet covered by law. Meanwhile, Mode 1

practitioners are indicted for their inaccessibility, and a general lack of concern for dissemination beyond their disciplinary communities.

The 'trigger' for Mode 3 appears to be appreciation and critique of the human condition, as it has been, is, and might become. The individuals carrying out these conversations are in communities that tend to be more permanent than those sheltering Mode 2, or even Mode 1. They are anchored in birthplace, residence and relationship as opposed to employment. The purpose of Mode 3 knowledge production, generally stated, is to assure survival and promote the common good, at various levels of social aggregation. The impetus is not an intellectual gap identified by a sub-discipline, though a number of academics, especially in the humanities, have relevant things to say. It is not, at heart, a 'practical problem' to be solved, though certainly specific areas of concern can benefit from being treated in this way.

One sign that a distinctly different form of knowledge production already is a reality, can be found in activities funded primarily by non-government, not for profit organizations (NGOs), a rapidly-growing set of organizations that are themselves uniting action and research (Smillie and Hailey, 2001). NGOs and other charitable organizations are an important fourth strand to add to the 'triple helix' of higher education institutions, industry and government discussed by Lydersdorff and Ketzkowit (1998) and mentioned in the Starkey and Madan report. A fifth important contributor would seem to be the media, and more broadly, the world-wide web. Here too knowledge production activities are proliferating. The overall point is that the 'virtuous circle' admired by Starkey and Madan and many others, is potentially much broader and more complex than realized. This is an observation that prompts a last addition to Starkey and Madan's action agenda:

8. Create platforms for discussion, research and dissemination on the societal inputs to and impacts of organizational activity

It is important to recognize that business is ultimately accountable to society. If we take this accountability seriously then business schools should be a crucial catalyst for narrowing this particularly important relevance gap. Inputs from diverse stakeholders will be required, contributors

from NGOs, the media and electronic sources of information seem particularly important. The process will not be easy, because the differences in values and interpretation are remarkably broad. As we frame it, more participatory practices than followed in many organizations (e.g. Dragron, 2001) also will be required.

But the risk of not giving more attention to this knowledge gap is great. Michael MacGrath, a DBA student at Cranfield School of Management, is interested in the match between acknowledged levels of risk and managerial mitigation efforts. He found an inverse correlation in the first organization he studied, leading to a paper titled 'In sight, but out of mind' (MacGrath, 2001). It is not too hard to identify some of the reasons why this mismatch occurs; the most difficult risks are also the hardest to address. Hopefully, the events of the last few weeks will not result in a similar 'in sight but out of mind' situation at the heart of the relevance gap between business and business schools.

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