Humanities-Industry Partnerships and the 'Knowledge Society': The Australian Experience

Elizabeth Cassity and Ien Ang

Humanities-Industry Partnerships and the 'Knowledge Society': The Australian Experience

Elizabeth Cassity

University of Sydney

Ien Ang

Centre for Cultural Research, University of Western Sydney

Abstract

National research policies are today driven by the concept of the 'knowledge society', in which development is deemed to follow the application of new ideas. Australia, like other countries, has encouraged partnerships between the universities and industry. This essay examines how Australian scholars in the humanities have responded to the Australian Research Council's Linkage Projects. Their experience underlines the importance of viewing collaboration as social practice, and the need to find a satisfactory synthesis between academic and industry perspectives.

Introduction

National research policies throughout the world are today committed to the goals of the 'knowledge society'. In Australia, this commitment has been incorporated in the Federal Government's strategy to ensure that the country keeps pace with the global knowledge revolution[1]. Within this context, academic research is expected to contribute to the 'national innovation system' that helps drive economic and social development.

To date, these policies have been formulated principally with science and technology in mind, and their implications for the humanities and social sciences have been relatively neglected. However, leaders in these disciplines have argued that their expertise should be included as potential resources for the solution of the problems besetting society. When, in December 2002, the Government announced its National Research Priorities, there was widespread dismay at the narrow definitions adopted. For example, the Government's priorities for 'An Environmentally Sustainable Australia'; for 'Promoting and Maintaining Good Health'; for encouraging 'Frontier Technologies for Building and Transforming Australian Industries'; and for 'Safeguarding Australia', appeared to demand a broader base of analysis, one that cultivated the perspectives of the humanities and social sciences[2]. Ardent

---

[1] Department of Education, Training and Youth Affairs, Backing Australia's Ability: An Innovation Action Plan for the Future (Canberra: Commonwealth of Australia, 2001).

[2] An outline and detailed description of the Australian Government's National Research Priorities is available from the Department of Education, Science and Training (DEST) at http://www.dest.gov.au/priorities/. For a response to the National Research Priorities, see Australian Academy of the Humanities, The Humanities and Australia's National Research Priorities (Canberra: Australian Academy of the Humanities, 2003).

lobbying resulted in the Government agreeing to broaden its categories of priority research. The Australian Academies of the Humanities and of the Social Sciences, and the recently established Council for the Humanities, Arts and Social Sciences (CHASS), became active in a push to promote – in the words of Malcolm Gillies, President of CHASS – 'a modern economy and a modern society', in terms that 'reflect the full spectrum of Australian research'[3]. These efforts have prompted a major rethinking of the ways in which the humanities and social sciences are practised in Australia, and the ways in which their public profile may be enhanced.

One of the more effective programmes in this context is the Linkage Projects scheme, introduced in 2002 by the Australian Research Council (ARC) to encourage collaborative research between industry and academe. Linkage Projects continued the work of an earlier programme of Strategic Partnerships with Industry Research and Training (SPIRT), which took place between 1998 and 2001. While encouraging collaborative work is hardly new, the ARC scheme has proved a major resource for new partnerships, and may be an important indicator of things to come. Between 1998 and 2003, it funded some 178 humanities and creative arts projects. In 2004, we were asked to review its impact, and to discuss a range of issues that its researchers have encountered[4]. In so doing, our attention was drawn to the changing nature of academic research, along lines that reflect the characteristics of 'Mode 2 Knowledge Production'[5]. In this context, we encountered a number of questions – for example, how have scholars in the humanities responded to the challenge of doing research that may directly benefit the community at large? More broadly, what roles will the humanities come to play in the 'knowledge society' of the new century?

Understandably, any commentary on developments driven by government funding is bound to attract controversy. Nevertheless, producing 'useful', 'relevant' or 'applicable' knowledge has become a national priority, and many humanities researchers are responding in interesting ways. It may be that further steps towards collaboration may well benefit the humanities, in ways that are yet to be found, but which are likely to prove fundamental.

'Mode 2' and the Humanities

In a recent issue of *Minerva*, Nowotny, Scott, and Gibbons summed up three significant trends in research policy throughout the Western world: increased government interest in setting and steering priorities; greater interest in commercialization; and concern for the accountability of science[6]. These trends have, in their view, found practical expression in a new mode of knowledge production that, by way of contrast with traditional forms of scholarly practice, they have called 'Mode 2'[7]. In this context, they see the rise of closer collaboration between experts and practitioners, working together on problems defined by specific contexts of application. Such practices are being shaped by a combination of

---

[3] Council for the Humanities, Arts and Social Sciences (Canberra), 'New Portfolio, New Approach', media release, 6 September 2004.

[4] For the full report, see Ien Ang and Elizabeth Cassity, Attraction of Strangers: Partnerships in Humanities Research (Canberra: Australian Academy of the Humanities, 2004).

[5] Michael Gibbons, Camille Limoges, Helga Nowotny, Simon Schwartzman, Peter Scott, and Martin Trow, The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies (London: Sage, 1994).

[6] Helga Nowotny, Peter Scott, and Michael Gibbons, '''Mode 2'' Revisited: The New Production of Knowledge', Minerva, 41 (3), (2003), 179-194.

[7] Gibbons et al., op. cit. note 5.

academic and social demands which, according to Gibbons et al., are not merely 'applied' research[8]. Often, indeed, such combinations are giving rise to new knowledge through processes characterized by reflexivity, transdisciplinarity, and social accountability. Nowotny et al. take the argument further, observing that, as a result of these developments, so-called 'pure' or basic research – 'Mode 1', in their terminology – is becoming an increasingly marginal preoccupation of academic life[9]. Instead, there is now a routine inclusion of 'user' representatives in research assessment exercises, and in the definition of discourses of application, with their specific languages of relevance, context, and management.

These conclusions have not escaped controversy, and *Minerva* has not been alone in noticing difficulties with the popular interpretation of 'Mode 2'[10]. Critics have suggested that those who see the future in terms of 'Mode 2' are underestimating power relations between social groups, which do not automatically contribute to positive change or to an open economy of cooperation[11]. In any case, within the humanities, the predominant tendency is still to defend independent scholarship against an emphasis on relevance. This, it is argued, is all to the good. Sceptics have noted that, as universities embrace market forces, they are privileging instrumental practice, and making a shibboleth of 'innovation', to the ultimate disadvantage of scholarship. As Simon Cooper has remarked, 'To make a fetish of innovation, whether in the sciences or the humanities, is to create conditions which militate against any defense of the university'[12]. Even Nowotny et al. see problems with the invocation of 'Mode 2', especially where research and development are focused upon short-term political agendas[13]. When governments and funding bodies manage priorities, an over-emphasis on utility may threaten the diversity, and even the very generation, of new ideas.

Such criticisms notwithstanding, the trend towards 'Mode 2' practices does seem robust. Indeed, in their most recent book, *Re-Thinking Science*, Nowotny, Scott, and Gibbons have argued convincingly that the growth of open systems of knowledge production has gone hand in hand with the increasing complexity of contemporary society, manifesting increased uncertainty, and forcing a much greater interpenetration of the demands of 'science' and 'society'[14]. Whilst in the first decades after the Second World War, academic science may have been seen as a relatively external force – with the exception of wartime science-based technologies, still separate from the broader world of affairs - today, science and scientists are under constant scrutiny. The media are more extensive and inquisitive, and there is an articulate and highly educated citizenry that demands a say in what scientists do (the debate about genetically modified food is a case in point). Nowotny et al. call this 'the reflexivity of the context' of research, which, they argue, has become pervasive and unavoidable in a society where the boundaries between 'state' and 'market', 'public' and 'private', 'culture' and 'industry' are everywhere blurred[15]. In other words, 'Mode-2 science has developed in

---

[8] Ibid.

[9] Nowotny et al., op. cit. note 6, 184.

[10] See Minerva, 41 (3), (2003).

[11] Dominique Pestre, 'Regimes of Knowledge Production in Society: Towards a More Political and Social Reading', Minerva, 41 (3), (2003), 254.

[12] Simon Cooper, John Hinkson, and Geoff Sharp (eds.), Scholars and Entrepreneurs: The Universities in Crisis (North Carlton, Vic.: Arena Publications Association, 2002), 6.

[13] Nowotny et al., op. cit. note 6.

[14] Helga Nowotny, Peter Scott, and Michael Gibbons, Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty (Cambridge: Polity Press, 2001), 4.

[15] Nowotny et al., op. cit. note 6, 209.

the context of a Mode-2 Society'[16], a fact all too evident in the funding landscape. The effects of these changes in emphasis and direction are not confined to science, but extend to all researchers, who are forced increasingly to think about the social impact of their work.

This is the context in which the ARC's Linkage programme can best be understood. The language of 'Mode 2' is reflected in the ARC's policy of 'brokering research partnerships within the Australian innovation system and capturing economic, social and cultural benefits of research'[17]. Underlying the Linkage idea is the premise that collaboration and innovation are inextricably entwined. Thus, 'Collaborative links stimulate innovation by facilitating cross-cutting interactions and a free flow of ideas and knowledge. Innovation generally occurs more rapidly and with greater intensity in situations in which there is a higher degree of collaborations'[18]. This message puts 'innovation' in centre court, and foresees social and economic benefits as key outcomes of research policy. Perhaps this push may work for the sciences; but where does it leave the humanities?

Gibbons et al. have suggested that, despite the prominence of individual scholarship, the humanities have always shown 'Mode 2' features, as exemplified by the 'essay', arguably 'one of the oldest forms of Mode 2 production'[19]. Essays, according to Gibbons et al., 'roam freely in the territories seemingly held by the specialisms, link together what otherwise would remain fragmented analyses'[20]. Nowotny et al. add that, rather than being detached, the humanities 'are the most engaged of all disciplines...because they comfortably (and inevitably) embody notions of reflexivity which the natural, and even the social, sciences distrust'[21].

However, these observations suggest an over-optimistic assessment. Over the past century, the humanities in general have tended to prefer 'Mode 1', with its emphasis on disciplinary specialization and individual autonomy, rather than 'Mode 2', with its problem-focused, multidisciplinary, and collaborative orientation. While the form and content of humanities research may well display 'Mode 2' characteristics, its outcomes fit less easily within the social and economic expectations of 'Mode 2', given their emphasis upon calculable outcomes in clearly demarcated contexts[22].

Our study has shown clearly that Australian researchers in the humanities today face two important challenges. First, their culture may still be one in which curiosity-driven, individual scholarship (that is, 'Mode 1') predominates, with the sole-authored monograph being its most prized output. As a result, many will lack the experience, skills, and contacts that are necessary to do the kind of research that 'Mode 2' requires. Second, knowledge in the humanities tends to be less easily directed towards meeting the needs of 'industry'. The humanities typically produce 'explanatory models and rich and nuanced interpretations of

---

[16] Ibid., 4.

[17] An outline of the objectives of the Australian Research Council's Linkage Projects Grants Program 2004 is available at www.arc.gov.au/grants_programs/linkage.htm.

[18] Australian Research Council, Submission to the Research Collaboration Review (Canberra: Australian Research Council, August 2003).

[19] Gibbons et al., op. cit. note 5, 106.

[20] Ibid.

[21] Nowotny et al., op. cit. note 6, 188.

[22] See Ien Ang, 'Who Needs Cultural Research?', in P. Leystina (ed.), Cultural Studies and Practical Politics: Theory, Coalition Building, and Social Activism (New York: Blackwell, 2005), 477-483.

complex questions'[23]. As a consequence, their economic, social, and cultural benefits are difficult to measure, and their contexts of application are diffuse and inferential. It follows that the expertise, resources, and assets that the humanities bring to social problems are often not understood by potential partners, or even by potential patrons.

Despite these factors, our study has shown that an increasing number of humanities scholars in Australia are adapting to the new environment – setting new agendas, developing new ways of working, and initiating projects with a wide range of industry partners. Their participation in Linkage Projects illustrates a growing interest in adding inflection and engagement in public fora and 'applied' contexts[24]. We may well ask how they are faring, and what larger consequences may arise.

Partnerships in the Humanities Research

In Australia, as in many other countries, research in collaboration with industry is a relatively recent development for the humanities. For many, the term 'industry' is confusing, as it invokes a world of manufacturing and commerce, from which the humanities are generally far removed. The ARC's use of the term is broader, and refers to organizations in both the public and the private sector. The ARC designed Linkage Projects to encourage the development of long-term alliances between universities and industry. The plan is to produce 'a national pool of world-class researchers to meet the needs of Australian industry'. In the scheme, industry partners are required to provide cash and in-kind contributions. Successful projects are expected to involve genuine interaction between academics and users. Critically, the ARC emphasizes that its projects should 'acquire new knowledge and (...) involve risk or innovation'[25]. This is the ARC's way of saying that research must have academic credibility, and not be driven solely by industry demands. Unlike research consultancies, which delineate desired outcomes according to predetermined expectations, academic research generally carries risk because its outcomes are open-ended and unforeseen, and depend to a large degree on the research process itself. Our study has thrown light on the deep-seated tension between the interests of new knowledge and industry. This can give cause for concern; yet, it is also proving a creative tension.

Our study examined Linkage Projects that were submitted to the ARC's Humanities and Creative Arts (HCA) disciplinary grouping between 1998 and 2003[26]. A survey was sent to all recipients[27]. The objective was to learn how research partnerships were formed and

---

[23] Benjamin Berger, Daniel Costello, Patricia Demers, David Graham, Linda Hutcheon, Stephen McClatchie, Doug Owram, Louise Poissant, and Therese De Groot, Alternative Wor(l)ds: The Humanities in 2010: Report of the Working Group on the Future of Humanities to the Board of Social Sciences and Humanities Research Council of Canada (Ottawa: Social Sciences and Humanities Research Council of Canada, March, 2001), 19.

[24] These issues are similar to those described in Patricia Demers, 'Horizon of Possibilities: A Canadian Perspective on the Humanities', Arts and Humanities in Higher Education, 1 (1), (2002), 11-26.

[25] For a full description of the Linkage Projects scheme, see www.arc.gov.au/grant_programs/linkage_projects.htm.

[26] The ARC is divided into six disciplinary groupings: Mathematics, Information and Communications Sciences; Biological Sciences and Biotechnology; Physics, Chemistry and Geosciences; Engineering and Environmental Sciences; Social, Behavioural and Economic Sciences; and Humanities and Creative Arts. Each disciplinary grouping is managed by an executive director, assisted by a relevant College of Experts.

[27] Linkage Projects applications can be submitted twice a year, in May and November. Only the May round (Round 1) of 2003 was included in our survey. Between 1998 and 2003/Round 1, 178 HCA projects were funded. A total of 301 surveys were sent to all listed chief and partner investigators in these projects. From these, 116 responses were received, a response rate of 38.5%.

sustained; to determine the general characteristics of successful projects; and to review issues that participants consider fundamental in relation to economic, social, and cultural outcomes.

The scheme has been unevenly taken up across HCA disciplines[28], but our survey show a gradual and significant increase in participation[29]. ARC data show that the largest group of projects involve law, justice, and law enforcement (32%). This is perhaps not surprising, given the 'applied' orientation of these fields. Also relatively well represented, however, are historical studies (14%); architecture, the urban environment, and building (10%); media and communication studies (8%); archaeology (5%); and the creative arts (12%). By contrast, text-based disciplines – such as literature studies, cultural studies, and philosophy – are less well represented[30]. Perhaps disciplines that focus upon theory building, criticism, and 'pure scholarship' – having little relation to particular contexts of application – have greater difficulties in adapting to the 'move' towards 'Mode 2'.

That being said, we found the official classifications used by the ARC do not always capture the varied backgrounds of the researchers involved. This presents a problem in relation to acquiring a detailed profile of humanities scholars who are participating in this 'turn' to 'Mode 2'. Our respondents came from a variety of fields – from Asian studies, drama studies, and cultural heritage studies to linguistics – and teams involving more than one discipline were common. Collaborators included sociologists, psychologists, economists, statisticians, accountants, and environmental scientists. If trans-disciplinarity is a characteristic of 'Mode 2,' then these humanities researchers seem to qualify. The tendency to categorize projects within a single disciplinary rubric – still a general practice, for official reporting and audit purposes – is a problematic simplification, and may well prove a major problem in future research assessment. As Nowotny et al. observe, 'Interdisciplinary research has to be clumsily disaggregated, while truly creative research in the borderlands between disciplines is devalued'[31]. Humanities researchers seem to do well at linking with other disciplines, even if the ARC has been slow to see the extent to which this is happening.

Who are the 'industry partners' in the equation? As expected in Australia, with its large public sector, cultural institutions (museums and libraries, media organizations, arts councils) are particularly well represented, as are local and state government departments. Partnerships with private sector organizations have been rare[32]. Two examples give a sense of the linkage strategy. Both involve collaboration with major city museums.

Exhibitions as Contested Sites: The Role of Museums in Contemporary Australian Society was a collaborative project between the University of Sydney and the Australian Museum,

---

[28] The ARC provided us with a disciplinary spread of Linkage Projects grant recipients, using Research Field Classification Descriptors (RFCD) adopted by the Australian Bureau of Statistics.

[29] For 2002 and 2003/Round 1 Linkage Projects, a total of A$108,325,397 was awarded by the ARC; of this amount, A$9,282,208, or 9%, was awarded to Linkage Projects in the HCA disciplines. The average grant was $210,959 over three years. The success rate for all applications was 51%: for HCA applications, it was 59%. HCA applications made up 8% of all applications during the period, increasing from 6% in 1998 to 9% in 2003. These data are found in Ang and Cassity, op. cit. note 4, 8.

[30] Ang and Cassity, op. cit. note 4, 11.

[31] Nowotny et al., op. cit. note 6, 184.

[32] ARC data indicate that industry partners in HCA Linkage Projects are predominantly public sector organizations in Government, Administration and Defence (38%) and Cultural and Recreational Services (27%), in Ang and Cassity, op. cit. note 4, 12. Categorization is made according to the Australian and New Zealand Standard Industrial Classification (ANZSIC) system.

also in Sydney. The study examined how museums assess their role in the discussion of contentious issues. The project found that audiences identify museums as respected places. They want balanced viewpoints, but are receptive to material that invites active engagement, rather than passive observation. These conclusions challenged some perceptions about what a museum should be, and opened the door to changes in the ways in which the Australian Museum interprets and presents its collections. The study attracted interest from Canada, the USA, and Europe, where museums face sophisticated audiences in information-rich environments. In this case, the chief investigator and the partner worked actively together, and are likely to continue to do so.

In a similar vein, *Realms of the Buddha: Museums, Cultural Diversity and Audience Development* was a collaboration between the University of Western Sydney and the Art Gallery of New South Wales, Sydney's largest art museum. Combining multicultural studies, Asian Studies, and Buddhist studies with curatorial and museum education, researchers studied the development, implementation, and reception of an ambitious exhibition of Buddhist art that took place in Sydney during 2002. From the viewpoint of Gallery staff, the research was useful because it showed how they could attract new audiences, especially from Asian migrant communities, who are not yet regular customers. For their part, the academic investigators were interested in the difficulties that art museums face in a multicultural society. Theorising the exhibition as a cross-cultural event, they set out to investigate how it managed to draw new audiences and contribute to a better understanding of Buddhism as a social, spiritual, and cultural force in Australia. Thus, the research was easily judged 'useful' and 'relevant'. However, unlike Contested Sites, Realms of the Buddha did not result in further collaboration between these particular partners – perhaps indicating that a less productive synergy was achieved between academic and industry interests.

Such, however, are merely suggestive conclusions, and a complete picture is yet to emerge. Linkage Projects have ranged widely, from studies of road safety education (a partnership with NRMA, the national motoring and services organization), to producing a new interactive website for youth in distress (a collaboration between a youth counselling service and a team of Creative Industries researchers). Other projects have included the study of performance audiences (conducted by researchers from the disciplines of dance, psychology, and English literature); the establishment of a digital archive of James Cook's and Samuel Wallis's Pacific voyages for the National Library of Australia; and the study of climate and people during processes of extinction (by the public education section of the Australian Museum and the Environmental Protection Agency at the Riversleigh, Queensland World Heritage site). All this work has combined the production of knowledge with the illumination of social issues, and has added both to scholarship and public understanding.

We were not surprised to discover that the vast majority of academic and industry partners in the Linkage scheme (83%) knew each other before developing a proposal. Many saw prior knowledge as part of the proces[33]s. This suggests the need to have active research networks that lie at the core of 'Mode 2'. What Gibbons et al. call 'socially distributed knowledge' can be sustained only if different sectors act together[34]. Indeed, one of the industry partners recalled the value of developing 'new relationships with the academics that are involved in

---

[33] Because of confidentiality agreements, we cannot identify interviewees by name or institution.

[34] Gibbons et al., op. cit. note 5.

the proposals, it's an expanded network of building up connections no matter what actually happens with the project'[35].

What about outputs? Our survey found that the dissemination of results takes place in familiar ways. Books (10%), journal articles (19%), conference presentations (17%), and reports (11%) comprise most of the measurable outputs.[36]36 To a lesser degree, websites and other digital products, exhibitions, films, and industry guidelines have been forthcoming. However, many participants noted that, whilst the Linkage scheme was an overwhelmingly positive experience, partnership projects remained marginal to the business of mainstream scholarship. Here the transition from 'Mode 1' to 'Mode 2' remains most conspicuously incomplete, owing in large part to the 'output measurements' demanded for audit purposes by the Department of Education, Science and Training (DEST).[37] It is fundamentally ironic that the Federal Government organization that is entrusted with the promotion of research is encouraging outcomes of a kind that another Federal body finds difficult to measure, or to reward.

Nurturing the Culture of Collaboration

To explore the collaborative research experience in greater depth, we interviewed twenty-six researchers and their industry partners. These interviews highlighted the fact that the collaborative process itself is a major challenge. In each project, trust, and mutual respect proved essential. Personal trust enables partners to overcome problems of design, culture, and management. As one respondent put it:

> I have to say that once those kinds of discussions started with the industry partner, they did significantly change and, thankfully, the industry partner and I were pretty much of the same view...there was a kind of research agenda that we could both see developing[38].

Comments such as these suggest strongly that collaboration is a practice that has to be learned. Clearly, there has to be a genuine willingness to invest in the process. Misconceptions have to be overcome, and tensions resolved. For example, some academics reported difficulty in explaining to their industry partners what 'research' actually means. Echoing the ARC's line that risk is a feature of research, one said, 'We found it very difficult at first to convince our partners that this was a research project, and that it wasn't contract work'.[39] On the other hand, one industry partner complained that her academic collaborators presumed that they had a monopoly on wisdom. 'I've found it quite shocking to be confronted with the idea somehow that expertise and research exists only in universities! And the idea that we don't know the literature or that we don't have the research skills'[40].

Today, knowledge has few boundaries; where they exist, as Gibbons et al. put it, 'The boundaries between the intellectual world and its environment have become blurred'[41]. This

---

[35] Interview with authors, 20 July 2003.

[36] Ang and Cassity, op. cit. note 4, 13.

[37] DEST recognizes only four types of publications for assessment purposes: books, book chapters, refereed journal articles, and refereed conference proceedings.

[38] Interview with authors, 13 October 2003.

[39] Interview with authors, 11 July 2003.

[40] Interview with authors, 12 September 2003.

[41] Gibbons et al., op. cit. note 5, 81.

is precisely what makes partnerships both fruitful and challenging. As many in science, medicine, and engineering have found, it is the interaction between academic research and industry that actually generates understanding. This pragmatic realization should help humanities researchers benefit from the new research environment. Nonetheless, there are structural barriers to be overcome. For example, the relative freedom of academic life can be a cause of friction. As one academic observed:

> I think industry has a problem with the culture of academia, which frankly is seen as being not particularly well organized, a bit all over the shop, not terribly outcome-driven. More process-oriented. And there's this idea that there's no time scale[42].

One could argue that the process-oriented nature of research is precisely what gives researchers the space to come up with ideas. At the same time, changes in university governance and a growing emphasis on performance have focused academic culture on achieving outcomes. From this point of view, the culture of industry has a marked downside:

> It's very rare to find an industry partner who thinks in anything longer than twelve-month time frames, in my experience. And often, their time frame and needs are driven by imperatives that are very immediate, and might be in response to political pressure, for example, or the demand to have some kind of output to meet certain objectives in the very short term[43].

If our findings can be generalized, Australian academic researchers are, for the most part, still short in sympathy with the pragmatic concerns of their partners. Museum professionals, for example, are faced with practical problems demanding practical solutions: the need to attract visitors, to work within tight budgets, and to satisfy sponsors. However, their academic Linkage partners want to reach beyond the immediately practical, to acquire new knowledge which, by definition, cannot be predicted.

It is clear that the successful conduct of Linkage Projects requires negotiation and consultation. Industry partners have to come to terms with the open-endedness of research, and to be persuaded of its benefits. Conducting the project as a team, and not just as a collection of individuals, becomes a central factor in success. Interviewees noted that 'finding a shared language', 'commitment to the worth of the project', and 'going through a learning period' are all vital. In this respect, the language of management features prominently. Collaborative research requires a level of professional conduct and agreement – an architecture with definite means and ends. In many ways, this represents a significant departure from standard academic practice. The impulse comes from several directions, and is, of course, not unique to the humanities.[44] But for partnerships to work, humanities researchers need to think beyond conventional lines and develop new skills. One historian felt that he was 'thrown in the deep end', and spoke of the need to become skilled in 'people management', in dealing with contracts, at accommodating different agendas and timetables, as well as in translating between different discourses. Several spoke of the skills they needed to produce

---

[42] Interview with authors, 12 August 2003.

[43] Interview with authors, 12 August 2003.

[44] See Department of Education, Training and Youth Affairs, University and Industry Research Partnerships in Australia: An Evaluation of ARC/DETYA Industry-Linked Research Scheme (Canberra: Commonwealth of Australia, 1999) for an earlier evaluation of industry partnerships involving science and technology disciplines.

> ...outputs for different audiences from research like this. I think there are some challenges there. It's difficult to find research assistants who can address the multiplicity of audiences in a fluent way, so who can write for an academic journal, a policy document, [or] a business report?[45]

The ability to address multiple constituencies becomes almost a condition for a successful Linkage project. These are among the essential characteristics of 'Mode 2'[46]. It is instructive that only a very small number (less than 5%) of the HCA projects we studied came unstuck. In those that did, researchers who agreed to be interviewed, cited a substantial change in goals and design, and a lack of communication as the principal problems. Certainly, differing professional cultures can lead to tensions in day-to-day project management. Linkage Projects requires academics and industry partners to be responsible not only for outcomes, but also for process. This requires that both parties develop a 'culture of collaboration' – emphasizing communication, trust, and flexibility.

Outcomes and Impacts

What have been the principal outcomes? Overall, our study suggests that the new research environment – of which the Linkage Projects is a functional expression – is beginning to have an impact on the way in which humanities scholars do research. In return, industry partners are getting better at engaging with academics. The future, according to our interviewees, may develop along three dimensions – creating relevant knowledge; making a public impact; and encouraging interdisciplinarity and innovation.

What 'relevant knowledge' means is a matter of debate, but creating it certainly means going beyond having a good idea. Many industry respondents viewed 'relevance' as 'applicability in a practical sense'. But relevance as conceived by Linkage Projects goes beyond direct applicability. Both *Museums as Contested Sites* and *Realms of the Buddha* are examples in which partners successfully defined 'relevance'. Staff of the Art Gallery gained fresh insights into the ways in which their exhibition was received by suburban Buddhist communities. Similarly, *Museums as Contested Sites* led to a reconsideration of museum policies and exhibition design.

Partnerships are also encouraging academics to think about the wider public. Collaboration with industry encourages engagement. In the words of one interviewee, 'It lends a little bit more Realpolitik to the products of research'. As another put it: 'It's made me think much more constructively rather than just critically. Rather than sitting back and providing this critique of why the museum got it all wrong, it is: How can I provide something which says, ''well, this is how we do it'', or ''this may be the way to go''. So I look at positive outcomes as well.' Thus, Linkage Projects has encouraged researchers to go outside their ivory towers, and to contribute to finding ways of addressing, if not solving, problems in the real world.

Finally, collaborations bring together people of different disciplinary and professional backgrounds. That interdisciplinary collaboration can lead to new ideas - that is, to innovation – is not in doubt. But the experience is complex. While many interviewees were pleased, others were more cautious: 'it's a kind of buzz, but people will move into areas where there isn't real knowledge or strength', one commented. How interdisciplinarity

---

[45] Interview with authors, 5 September 2003.

[46] Nowotny et al., op. cit. note 6.

actually works out in practice, is also thought to demand more study. As the US Social Science Research Council has recently remarked, 'understanding collaboration better allows us to get closer to understanding what allows for true interdisciplinarity, a scholarly objective that is paid much lip service but is rarely ever made manifest'[47]. On many issues involved in this process, the jury is still out.

One industry partner, a senior policy officer in a government department, summarized the benefits of Linkage Projects in the following words:

> It's very important that we can use these research processes as a way of challenging our thinking, conceptual renewal, developing new expertise. In some cases it leads to having some better government strategies and policies. In some cases we decide, as a result of the research that we do, to fund or implement services differently and directly. In some cases, we're using the research to talk to our colleagues in other agencies and ask them to do things differently. Sometimes what we are able to do is to turn the insights from the research into guidelines that distil what we can regard as the current wisdom of particular issues, and sometimes, as part of the process of launching research reports, you can actually raise the public profile of an issue, at least for a short time[48].

Whilst all participants were clear that Linkage Projects involved challenges and difficulties, the opportunity to work with professional 'strangers'[49] proved to be an exhilarating experience. This must be one of the major attractions of 'Mode 2'.

Conclusion

What are the prospects for future research partnerships? What are the benefits? What are the costs? Many Linkage participants remain enthusiastic. As one industry partner put it, 'In a nutshell...it gives us a research capacity in conjunction with the universities that we just absolutely wouldn't have. We wouldn't be able to do any research that has any legitimacy to it if we were confined to the resources that are allocated within government for research'[50]. For their part, academics have learned more about ways in which research can be conceived, conducted, and communicated. All this has had at least three instructive consequences. First, collaborative research has been shown to require (and develop) a greater range of skills than an individual scholar normally possesses. Humanities scholars are learning to work in teams. Second, cross-disciplinary and cross-sectoral collaboration has opened up new spaces for the generation of ideas. Third, humanities scholars are learning that how research is communicated is important. They learn not only to critique from a distance, but also to communicate with audiences outside their own milieu.

Such changes in practice, scope, and focus have obvious costs. The ARC experience shows that partners must draw a delicate balance between academic and industry perspectives. In fact, securing that balance is what has made Linkage Projects so rewarding. The best research has proved to be neither purely industry driven, nor purely curiosity driven, but has rather involved careful negotiation between the two. As one academic concluded:

---

[47] Social Science Research Council, International Scholarly Collaboration: Lessons from the Past (New York: Social Science Research Council, 2000), 1.

[48] Interview with authors, 12 August 2003.

[49] This is the rationale behind the title of our report, Attraction of Strangers (see note 4)

[50] Interview with authors, 20 July 2003.

> We want to produce work that is credible to industry, and to policy makers, and we want to produce work that is credible within our own academic environment, to our peers. Very different knowledge regimes. Challenging stuff[51].

Over and above particular outcomes, Linkage Projects has improved communications between academe and industry. Nevertheless, both sides benefit from greater understanding of the collaborative process as a form of social practice. Gibbons et al. note that it is the function of the humanities 'to provide an understanding of the world of social experience. And they are valued for the insights and guidance we expect to be able to derive from them'[52]. Partnerships in Humanities Research has shown that, while critical capacity is valuable, what may be most crucial is the perspective it affords on the process itself.

Collaborative research encourages broader views and deepened sensibilities. How, in the long run, this may lead to a reconfiguration of the humanities remains to be seen. In the meantime, the spirit of accountability and reflexivity that – according to Gibbons et al.[53] and Nowotny et al.[54] – is fundamental to 'Mode 2' may usefully be commended to our scholars, humanists, and scientists alike. It can help academic research not only to survive, but also to thrive in the 'knowledge society' of the twenty-first century.

Biographical Notes

Elizabeth Cassity holds a PhD from Columbia University in Comparative Education, and was a Research Associate at the Centre for Cultural Research, University of Western Sydney, and the main researcher and project manager of *Partnerships in Humanities Research*. She was also a chief investigator on a university-industry research partnership on African young people in schools. She is now a lecturer in the Faculty of Education and Social Work at the University of Sydney. Her research interests include change and development in national and international higher education.

Ien Ang is an ARC Professorial Fellow and founding director of the Centre for Cultural Research at the University of Western Sydney. She has published a number of influential books in contemporary cultural research. She has been involved in two ARC Linkage Projects, and was chief investigator in the project on *Partnerships in Humanities Research*, in association with the Australian Academy of the Humanities and the Australian Research Council.

---

[51] Interview with authors, 20 August 2003.

[52] Gibbons et al., op. cit. note 5, 105.

[53] Gibbons et al., op. cit. note 4.

[54] Nowotny et al., op. cit. note 15.