

Universities and Communities: A Case Study of Change in the Management of a University

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ABSTRACT *The role of universities has been evolving over the last 20 years, from a focus on teaching and research towards an enabling, partnership role with industry, government and communities in their proximate geographical spaces. Universities are increasingly linked to place. This paper reports on a case study of a peri-urban Australian university that has chosen to link its identity with the development of its proximate communities. In doing so, a number of levers of change have been employed, amidst 'push' and 'pull' factors that have challenged the institutionalisation of change. The strategies employed by university managers have included: industry, government and community participation in university governance; a cooperative education programme; and changes to systems for promotion, performance and recognition. There have been a number of obstacles to change, some of which continue to beset the embedding of a focus on regional and community engagement. Although at a formative stage, this change is already showing promising results. The change levers employed provide some interesting insights for university managers, academic staff and students of organisational change, more generally.*

Keywords: universities, change, regional engagement.

The role of universities has evolved over the last 20 years as a result of a number of 'push' and 'pull' factors that have forged new links between higher education policy and regional development.¹ This transformation has been captured in the notion of a third role for universities, which has been described as centring on 'community service',² 'regional development',³ 'regional engagement',⁴ 'regional innovation organisation'⁵ and 'academic entrepreneurialism'.⁶ The nature of this role is recursive, infusing and re-shaping the traditional roles of universities in education and research; and systemic, shaping the design and structure of regional economies generally, and regional innovation systems in particular. Universities have, increasingly, become anchored to place. While this shift has been acknowledged in the literature, limited attention has been devoted to explicating the tools of change used by university managers in setting their institutions on a trajectory of regional and community engagement. This is important, however,

given the pressures on universities to be more relevant to their regional constituents and the significant departure that the third role represents, in many cases, from the traditional roles of teaching and research, contextualised in the universal community of universities and global knowledge creation. In other words, an emphasis on regional and community engagement represents a significant change in orientation for some universities, notwithstanding growing external signals that encourage this direction. Hence, it is pertinent to explore the types of strategies that university managers have employed in operationalising a focus on regional engagement.

This paper considers the levers of change employed by a peri-urban Australian university in institutionalising regional and community engagement as a strategic objective. The first section of the paper sets the scene by considering the imperatives for change facing universities. The discussion in this section considers the triple helix model of university, industry, government relations and the literature on university engagement, both of which have conceptualised the third role of universities. The second section provides an overview of the case study and outlines the research methods used. The third section of the paper sets out the change strategies employed by university managers in implementing a focus on regional and community engagement. The final section reflects on the effectiveness of the change strategies and raises a number of issues that confront universities seeking to strengthen their emphasis on engagement.

The Imperatives for University–Community Engagement

The evolution in the role performed by universities has been shaped by a number of ‘push’ and ‘pull’ factors.⁷ The push factors refer to changes within the higher education system, including higher education policies that are encouraging universities to engage with their regions; the move from a system of elite to mass higher education; lifelong learning needs created by changing patterns of skills demands in the labour market and increased competition from providers of education on a global scale. The pull factors have emerged from the wider economy, and include: the use of regional policies that aim to leverage innovation-focused development; the regionalisation of economies, leading to a new geography of capitalist activity associated with, on the one hand, the growing internationalisation of production and the mobility of global capital flows and, on the other, the declining regulatory capacity of the nation-state; and stronger pressure from communities for institutions of higher education to adapt their research and education activities to support regional agendas. This shift has led to the resurgence of the region, through the integration of production at a regional level and the decentralisation of large corporations into clusters of small business units, and the greater role of small to medium enterprises (SMEs) in innovation environments. In turn, these developments have transformed the traditional client base of universities in education and research.

Secondly, learning and teaching activities of universities have moved away from a linear model of transmission of knowledge, based upon the classroom, and are becoming more interactive and experiential, drawing upon technologies that require locationally specific material.⁸ Thirdly, the institutions that regulate economic activity have, increasingly, become regionalised.⁹ At a regional level, an array of intermediate organisations is emerging which create in any particular locality an ‘institutional thickness’.¹⁰ Universities are being drawn into the

institutional set-ups of regions, both as participants and as the objects of increasing demands for locationally specific responses to support and enable economic and social development.¹¹ Thus, Etzkowitz¹² argues that, where there are gaps in regional innovation environments, universities play a broad role as regional innovation organisers, intervening directly to shape the structure of regional economies and bringing together local businesses and municipalities to develop an innovation strategy.

There have been two major bodies of literature that have addressed the nature of the third role of universities in regional development. These are: the triple helix model of university, industry, government relations¹³ and the literature on university engagement.¹⁴ Both bodies of literature have considered the role that universities perform in regional economic and social development. However, while there is a degree of overlap between these bodies of literature, there are also differences in the way that the third role of universities has been conceptualised.

The triple helix model asserts that universities perform hybrid, primary institutional roles in economic regulation, which overlap with the roles traditionally ascribed to industry and the state. This model suggests that universities generate development and growth opportunities directly, through knowledge capitalisation and other capital formation projects, centring on academic entrepreneurial initiatives, such as incubation, firm formation and science parks, as well as other boundary-spanning mechanisms that are designed to capitalise knowledge created, or co-created, by universities, often, with government and industry support.¹⁵ For example, universities directly support regional agglomeration, through incubation, firm spin-offs from their research activities, and attracting the co-location of firms in the region to take advantage of knowledge spillovers from university education and research programmes. Similarly, a university may integrate its educational programmes with the creation of enterprises or implement programmes to support the need for generic, advanced training in the context of the greater workforce mobility that accompanies a trajectory of incubation and spin-off. Over time, the entrepreneurial activities generated by a university may also shape the development of regional cultural norms of openness to learning, trust and cooperation among firms, which are important lubricants of interactive innovation. In this sense, the triple helix model suggests that universities perform a generative role, as key architects, even, drivers, of regional development. While not eschewing other types of activities undertaken by universities in regional systems, a distinctive characteristic of the triple helix model is its emphasis on academic entrepreneurialism.

The university engagement literature accepts that academic entrepreneurialism is an important source of generative growth, but takes a broader, developmental perspective. According to this body of the literature, universities focus on making their traditional functions of teaching and research more regionally relevant, for example, by adapting their teaching programmes to contribute to regional knowledge needs and undertaking regionally focused research, underwritten by government and industry, that is not necessarily predicated on knowledge capitalisation. For example, a university may participate in bilateral or trilateral research mechanisms to undertake research that supports the knowledge needs of existing regional clusters. Education programmes and instructional design methods may be tailored to address specific regional sectoral environments. Universities may also provide important inputs to regional governance processes. These initiatives support regional systems, but they need not be linked to knowledge capitalisation or other capital formation projects that are controlled by the university.

Regardless of which approach is undertaken, universities face a number of challenges in institutionalising a focus on regional and community engagement. On the one hand, pressures to raise funding from private sources may hamstring regional engagement, because, in some regions, the nature of the industry base is such that there is limited funding available to support university research projects, even if firms are willing to do so. The latter is, itself, an obstacle, particularly in regions that are dominated by SMEs with little interest in committing scarce resources towards research projects that may not yield productive benefits for several years. On the other hand, academic staff may be reluctant to pursue initiatives in community engagement because this type of work is not seen as beneficial for promotion, compared to work of national or international significance. The latter may also be perceived as more attractive for securing competitive grants. Furthermore, external engagement, almost inevitably, involves raising expectations, in communities and within the university itself. In some cases, engagement projects undertaken by university staff, in conjunction with community stakeholders, may take time to mature and yield clear benefits. Hence, it is important that university managers avoid the perception that engagement is a mere fad or, worse, is undertaken as a token gesture to feign relevance. In this context, university managers seeking to implement policies that institutionalise a focus on community or regional engagement must be judicious in selecting appropriate levers of change in order to ensure that expectations are not raised without a reasonable likelihood of sustainable outcomes.

The Study

The case study involved a peri-urban university in Australia that was seeking to embed a focus on regional engagement as a core strategic objective. The university's stated goal in respect of partnerships and community services was broad, namely:

To contribute to the educational, cultural, social and economic development of the regional, national and international communities it serves.¹⁶

Regional and community engagement was seen as:

Placed within a broader strategic context of building sustainable communities ... The university is strategically placed to join the community in addressing issues of health, housing, educational opportunity, equity, employment, small business, women, indigenous issues and environmental management.¹⁷

Established in 1989, the university is located approximately 30 kilometres west of Sydney, Australia's largest city. Its proximate regional space is the third largest regional economy in Australia, behind the Sydney CBD and Melbourne, with a population of 1,720,000, occupying 8,817.3 square kilometres.¹⁸ It has the fastest growing population and economy in Australia.¹⁹ The region is diverse in size, geographical spread and economic base, containing four major cities and 14 local government areas. The industry base of the region is diverse, dominated by light manufacturing, construction, retail, telecommunications, information technology

and tourism; as well as resources, metal trades, health, food processing, fibres and defence and aerospace.²⁰ The industry base of the region is also dominated by over 72,000 SMEs; although the region also includes more than 150 of Australia's top 500 companies.²¹ The enabling legislation made explicit a focus on the development of its proximate region, and, hence, the university embraced 'learning, discovery and community engagement'²² as key pillars of its identity. In particular, regional engagement was accepted by senior university managers as a core strategic objective, reflected in a dedicated Office of Regional Development, to champion and enable university–community linkages and foster change within the university; and the creation of a Regional Council of business, government and community leaders to act as a sounding board and critical friend regarding engagement initiatives.

The case study was based on 40 semi-structured interviews, which included nine interviews with senior university managers; five interviews with university staff holding management roles in areas relevant to the study; seven interviews with university academic staff; seven interviews with senior staff of regional organisations; six interviews with senior representatives of private sector companies that had had links with the university, mostly through a cooperative education programme (CEP); four senior representatives of government agencies that had had links with the university, and two representatives of community sector organisations that had participated in projects with the university. The study explored the imperatives for change, the types of change strategies employed and the impacts of these strategies on the objective of closer linkage between the university and its proximate regional communities.

Levers of Change in University–Community Engagement

This section considers the levers of change employed by university managers in seeking to institutionalise a commitment to regional and community engagement. At the highest level, the university implemented a number of mechanisms that may be regarded as signalling the importance of a focus on regional and community engagement. A commitment to regional engagement was published in its Strategic Plan and espoused fully at the highest level of governance. Line managers were asked to communicate and operationalise this commitment at unit level. This was underpinned by the formation of a peak Regional Council, consisting of over 30 senior representatives of business, government and communities, from within the proximate region. This body was asked to review strategies for operationalising engagement and the university's performance, as well as providing a channel of communication between the university and its wider communities. As indicated above, an Office of Regional Development was also created to provide practical support for the creation of linkages with industry and communities in the region. The change levers discussed in this section, largely, have been introduced through this office. Three key change levers are considered:

- a cooperative education programme, which involves workplace-based, student projects that are designed to make a productive contribution to innovation in regional organisations;
- an internal grants scheme aimed at encouraging regional partnerships; and
- changes to promotion, performance management and recognition arrangements to institutionalise a focus on engagement.

Cooperative Education Programme

The university has introduced a cooperative education programme (CEP) to encourage links between academic staff, students and regional firms and other organisations. This programme aims to integrate workplace-based research projects into the teaching programmes of the university, as localised learning processes and, significantly, as sources of innovation impulses for regional firms and other organisations. The cooperative education programme was introduced in 1995 to integrate education and regional engagement, by brokering workplace-based research projects for students in their final years of study, in a range of disciplines. Hence, the programme has been positioned as 'building a particular bridge to SMEs through the research undertaken by students'.²³ The aims of the CEP are, to:

- provide industry research opportunities for students;
- build new and strengthen existing links with industry; and
- give UWS students an edge in competitive job markets.²⁴

Since 1995, over 480 students from a wide range of disciplines, including Agriculture, Business, Computing and IT, Education, Engineering, Environmental Studies, Law, and Science and Technology, have participated in the cooperative education programmes, which have involved sponsorships by approximately 250 organisations, predominantly from the public sector. Cooperative education programmes are conducted over the Summer and Winter vacations each year, as well as in academic sessions. Employers pay a modest, tax deductible fee to secure a student to undertake a specific research project related to their studies over a period of between five and 12 weeks. The full session cooperative education programme extends over a period of between six and 12 months. Projects undertaken by students have included: designing web-pages, preparing business/marketing plans, testing chemicals, investigating production problems, developing information technology solutions and undertaking social research. These projects, potentially, yield useful innovative outcomes for client organisations. Each project is supervised by one or more academic staff member, ensuring the quality of research methods and techniques, as well as providing access to university facilities and equipment and scrutiny of research outcomes.

Senior representatives of private companies that had participated in the CEP pointed to significant innovative outcomes that had resulted directly, or indirectly, from these projects. Managers of firms and public agencies that had participated in the programme reported that the programme provided important knowledge impulses for their innovative activities. Although the innovation outcomes from the programme are not monitored, an annual evaluation covering both students and organisations canvasses the usefulness of each project to the client organisation and its commercial potential/relevance. In an evaluation of the 87 projects sponsored by organisations in the 2000/2001 UWS Vacation Programmes, 56% of organisations believed the projects had yielded results that were of commercial potential and relevance. A similar percentage reported that the projects were useful to the organisation. This is broadly consistent with the results of previous years.

A sample of organisations from the public and private sectors was studied in detail. In most cases, the organisations studied could point to specific innovations

that had resulted from the CEP; some relatively minor, others of greater significance to the organisation. Some companies reported that they had subsequently employed their students on a permanent basis or on extended contracts. (A recent review of the programme stated that over 60% of students had found ongoing work based on their projects.)²⁵ Semi-structured interviews were conducted with the relevant managers of CEP projects, and company documentation (in most cases, in electronic form) was reviewed to obtain a clearer picture of the context within which the projects were undertaken. Two examples from the interviews conducted with firms are summarised below, to illustrate the range and depth of the impact of this programme on the innovative activities of organisations. These examples illustrate how the educational role of the university is being integrated with specific knowledge needs of firms in the region, as suggested by the university engagement literature.

A company involved in the biological treatment of waste water sponsored two projects to investigate the structure of micro-organisms used in their products. Although the company had a general understanding of how the characteristics of different types of bacterial cultures and enzymes affected the application of its products in different settings, it wanted to establish more precisely how the micro-organisms behaved under different conditions. The first project, lasting 12 weeks, did not produce the results expected. This was attributed by the Technical Manager to lack of time and gaps in the methodology used. A second project of six months duration produced much more useful results, which, in turn, led to modifications being made to some of the company's product formulations. As the Technical Manager put it:

We had a sense of what changes were needed, but we weren't certain, and we didn't have the technical justification.

As a result of the project the company has improved its product quality and is now preparing, with the continuing assistance of the student involved, detailed technical data on the reformulated products for presentation to clients. The company is now considering applying for a competitive industry-linked grant, with university academic staff, to investigate further the behaviour of micro-organisms in specific industrial applications.

A second example was a private manufacturing company that produced a unique water treatment process that had multiple industrial and commercial applications. The company used the CEP to undertake research projects centred on: examining the effects of ozone on molecular size; examining the toxicity of aluminium on plants and animals; and investigating the effects of calcium on electrodes. These projects related to particular aspects of the company's processes, and had led to improvements in product efficiency and product effectiveness.

The cooperative education programme has been a highly successful initiative in leveraging a change in behaviour, both within the university and in the region. Although modest in scope, the programme is a practical example that demonstrates how universities can model engagement, with productive outcomes for students and for the community, at minimal cost. In a number of cases, companies reported that the benefits derived from these projects far exceeded the cost and, in some instances, provided much better value for money than similar work conducted by consultants, for considerably higher fees.

Regional and Community Grants Scheme

A second mechanism for institutionalising the change towards regional engagement was the Regional and Community Grants Scheme, introduced in 2001, to leverage academic staff interest in regional engagement. The grants awarded under this scheme, in 2001/2002, were flavoured strongly by a focus on supporting community development and social justice. Key projects included:

- the Aunties and Uncles Cooperative Family Project: to evaluate the experiences of child care coordinators, primary carers, children and volunteers in the region;
- identifying early school leavers in one district;
- developing paucity management: piloting an action learning network for managers of non-profit human services in the region;
- staging a University Arts Festival in the region;
- conducting an Assistive Technology Seminar and Expo: to enhance education and employment opportunities for people with disabilities;
- a project to introduce E-commerce applications in SMEs;
- finding respite: working with families with disabilities in one district;
- Schools–Parents Alliance: a collaborative project with two government agencies to facilitate interactive efforts between schools and parents to improve educational outcomes of Lebanese-background students in high schools in one part of the region;
- supporting Aboriginal parents of young children through pre-school services: a strategy for improved communication, collaboration and networking; and
- developing a deliberative planning approach to secure sustainable agriculture in the Sydney basin.

There is a broad range of linkages covered by these projects, which centre on community and public service delivery innovation that supports the development of the regional governance system. The nature of these projects also reflected the university's orientation in regional and community engagement, towards social and community development. The Regional and Community Grants Scheme is at a formative stage of development and, although the quantum of each grant is modest, senior university managers insisted that their purpose was as much to symbolise and reinforce their commitment to engagement, as to provide resources to support specific initiatives. However, at this point, the scheme may be 'preaching to the converted', in the sense that grant recipients, in many cases, had already been active in community engagement. The challenge facing university managers is to extend the reach of the scheme to academic staff who had not already considered this type of activity.

Promotion, Performance and Recognition

Interviews with university managers and academic staff revealed that a key obstacle to embedding a focus on regional and community engagement was the university's promotion policy, which was not perceived as placing a high valence on regional work. Rather, as in most universities, the key criteria for promotion centred on teaching and the production of refereed research publications, with community service seen as a desirable requirement, but not critical in decision-making. The performance management system was built on similar touchstones. As part of its

suite of measures to institutionalise a focus on regional and community engagement, the promotion policy for academic staff was amended to add significant weighting to collaborative projects undertaken with regional stakeholders that led to clear social and/or economic benefits. Performance management arrangements, similarly, were adjusted to recognise regional contributions and to provide tangible support for staff wishing to pursue engagement initiatives. Further, the university introduced a number of measures to recognise and celebrate achievement in regional engagement; and, in so doing, to foster a self-generating current of partnership initiatives. For example, the Vice-Chancellor's Excellence Awards now include a category focused on 'Excellence in Regional and Community Partnerships'. The university also introduced a Regional and Industry Partnership Awards initiative to recognise and celebrate successful partnerships with regional stakeholders. An annual presentation is held to showcase key examples of university-region partnership and to signal to the community the ongoing commitment of senior managers to embedding sustainable partnerships.

The three types of change levers discussed in this section were at a formative stage in implementation. However, the early evidence, from university managers, academic staff and external stakeholders pointed to significant gains in (re) shaping behaviours. However, there were also a number of challenges, which are discussed in the following section.

Conclusion

There is a key imperative for change facing universities. Universities are under increasing pressure to become more relevant to the aspirations of their proximate communities and to provide tangible support for regional and community development initiatives. Reforms in higher education policy and in the wider economy are driving a shift towards a third role performed by universities, beyond teaching and research. This study has discussed the adaptive responses introduced by one Australian university in addressing these pressures. The change levers that have been employed provide insights that are of more general application.

That said, the university faces a number of challenges in embedding a focus on regional and community partnerships that support regional development. Firstly, the financial contribution provided by regional stakeholders is, at best, modest. Amidst declining revenue and increasing pressure to seek external sponsorship, the university faces acute pressure to pursue knowledge linkages beyond its proximate region. Secondly, the demand for university knowledge and expertise is patchy. This university has been successful in fostering innovation-focused, knowledge linkages with public and non-profit agencies; but has been less successful in forming such linkages with private firms, particularly SMEs. There appeared to be an unwillingness on the part of some SMEs to engage with the university. This was explained, in part, by a lack of awareness of how universities could assist SMEs, but also, a gap in understanding of the innovation process. Thirdly, while this university may have taken steps to redesign its promotion and performance management systems towards a broader focus on recognising regional work, this is not necessarily the case in institutions. Hence, for academic staff aiming for promotion or transfer to other universities, in Australia or overseas, the dilemma of regional versus national or international may remain. Fourthly, it is not clear that external bodies responsible for allocating competitive research grants share a belief in the

importance of regional engagement. Although, in Australia, there have been some changes towards a stronger emphasis on regionally oriented research, the perception, at least, among academic staff interviewed was that, to have a reasonable chance of success in securing competitive grants, proposals ought to focus on problems of national or international significance, undertaken by researchers with similar credentials. Although it was acknowledged that regional research may well have important implications at other levels, there was an underlying scepticism regarding the recognition of regional engagement in other parts of the higher education/R&D systems.

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